Dr. Gopal Lal Khatik

M.S. Pharm.; Ph.D.

Designation: Assistant Professor

Department: Medicinal Chemistry

Address: National Institute of Pharmaceutical Education and Research, Raebareli

Bijnor-Sisendi Road, Sarojini Nagar, Near CRPF Base Camp, Lucknow (UP)- 226002

E-mail: gopal_niper@rediffmail.com; gopal.khatik@niperraebareli.edu.in

Phone: +91-9256336645 (Mobile)

Website: http://www.niperraebareli.edu.in/faculty.html

IRINS Profile: https://niperraebareli.irins.org/profile/127059

Vidwan-ID: 127059

ORCID: https://orcid.org/0000-0002-3993-8114

Google Scholar: https://scholar.google.co.in/citations?user=k0VOQQgAAAAJ

Scopus: https://www.scopus.com/authid/detail.uri?authorId=14031691500

Research Gate: https://www.researchgate.net/profile/Gopal-Khatik

Citations: 1452 **h-index:** 20 **i10-index:** 38	**Publications:** 84	**Book:** 01 **Book Chapter:** 04	**Guest Editor:** 02	**Patents:** 01 (granted), 05 (Published)
Ph.D Supervision: 02 (Completed) 04 (ongoing)			**MS/M.Pharm. Supervision:** 18 (Completed) 10 (Ongoing)	

Profile in brief: I obtained B. Pharm. from BNCP Udaipur (2004). I was qualified national level GATE-2003, GATE-2004 and NIPER Entrance Exam-2004. I received M.S. (Pharm.) in Medicinal Chemistry from NIPER Mohali (2006) under the guidance of Prof. A.K. Chakraborti. I worked as Trainee Research Associate in Jubilant Chemsys (2006-07). Thereafter I qualified JRF NIPER (2007-08) and JRF/SRF in Engineering & Technology UGC (2008-12) for my

research work. I received my Ph.D. (2012) under the supervision of Dr. Vipin A. Nair from NIPER Mohali. Thereafter I joined School of Pharmaceutical Sciences, Lovely Professional University as an Assistant Professor (2012-16) and worked as an Associate Professor also (2016-2020). I have published 75 research and review article in indexed journals with high repute from ACS, RSC, Wiley, Springer, Bentham, Elsevier, Theme, and Taylor & Francis. I also edited the guest issue of Current Drug Discovery Technologies and Current Pharmaceutical Design from Bentham Science. I was awarded a project from SERB in young Scientist Scheme, which has been completed successfully. Currently I am working on the project of synolytic agents in the treatment of Alzheimer's disease which is funded by SERB. I am working as an editorial board member of AJAS, JPR, IJPBA and reviewer in various international journals. I am a lifetime member of IPA, CRSI, IPGA, ISCA and ISPOR. I am having expertise in drug design (CADD) and small organic molecule synthesis. My research interests include heterocyclic chemistry, asymmetric synthesis, and drug design in the area of cancer, diabetes and neurodegenerative diseases. I was awarded the Research Award by LPU for my research work in 2016, 2017, 2018 and 2019.

Education:

Degree/award	**University/Board/Organisation**	**Year**
Ph.D. (Medicinal Chemistry)	NIPER (S.A.S Nagar)	2007-2012
NIPER JRF	NIPER (S.A.S Nagar)	2007
JRF in Engineering & Technology, UGC	UGC, Selection & Award bureau, Delhi	2008

MS Pharm. (Medicinal Chemistry)	NIPER (S.A.S Nagar) Mohali Punjab	2004-2006
GATE	IIT. Delhi	2004
GATE	IIT. Delhi	2003
B. Pharmacy	BNCP Udaipur, University of Rajasthan, Jaipur	1999-2004
10+2	Board of Secondary Education Rajasthan, Ajmer	1997
S.S.C (10th)	Board of Secondary Education Rajasthan, Ajmer	1995

Employment and experience:

Research Interests: Organic Synthesis & Medicinal Chemistry

S.No.	Designation	Institution/Industry	Experience period
1	Trainee Research Associate	Jubilant Chemsys, NOIDA (UP)	03/07/2006 to 25/07/2007
2	Assistant Professor	Lovely Professional University Phagwara (Punjab)	21/07/2012 to 31/07/2016
3	Associate Professor	Lovely Professional University Phagwara (Punjab)	01/08/2016 to 18/02/2020
4	Assistant Professor	NIPER, Raebareli (UP)	20/02/2020 to present

Professional memberships:

S.No.	Society/Professional body	Membership type	Membership number
1	Chemical Research Society of India (CRSI) Banglore, INDIA	Lifetime member	LM/PUN/1492
2	Indian Pharmaceutical Association (IPA) Mumbai, INDIA	Lifetime member	LM/PUN/0180
3	Indian Pharmacy Graduate Association (IPGA), New Delhi INDIA	Lifetime member	LM/5705
4	Indian Science Congress Association (ISCA), Kolkata, INDIA	Lifetime member	L36142
5	Society of Pharmaceutical Education & Research (SPER)	Lifetime member	SPER/LM/PB/148
6	International Society for Pharmacoeconomics and Outcomes Research (ISPOR)	Member	---

Research Interest:

Synthetic organic chemistry encompassing asymmetric synthesis, heterocyclic chemistry, process chemistry, medicinal chemistry with aid of CADD specifically anticancer and antidiabetic agents.

Technical Skills:

Organic synthesis: Expertise in carrying out various organic synthetic reactions including asymmetric synthesis, multistep synthesis of organic molecules, Methodology development, Process chemistry and combinatorial chemistry. Experience in handling air sensitive, Pyrophoric, and hazardous reagents

Purification: Good expertise in purification of organic compounds using crystallization and distillation (at atmospheric and reduced pressures) and chromatographic techniques such as column chromatography, preparative TLC, HPTLC.

Analytical techniques: Experience in handling of UV-Vis, Fluorescence spectrophotometer, Flash chromatography, HPLC system, Polarimeter.

Structural elucidation: Well versed with structural elucidation using UV-VIS spectrometer, FTIR, 1D, 2D NMR (300 and 400 MHz) & Mass spectroscopy (LCMS/GCMS/MALDI-TOF-TOF/HRMS), CHNS- Elemental analyzer Installation and operation of instruments: Rotavapor, circulator, immersion cooler, vacuum pump, fume hood, magnetic stirrer, hot air oven, vacuum desiccator etc.

Publication (Research/Reviews):

1. **Khatik, G. L.,** Kumar, R., & Chakraborti, A. K. Catalyst-free conjugated addition of thiols to α, β-unsaturated carbonyl compounds in water. Organic letters 2006, 8(11), 2433-2436.

2. **Khatik, G. L.,** Sharma, G., Kumar, R., & Chakraborti, A. K. Scope and limitations of HClO4– SiO2 as an extremely efficient, inexpensive, and reusable catalyst for chemoselective carbon– sulfur bond formation. Tetrahedron 2007, 63(5), 1200-1210

3**. Khatik, G. L**., Kumar, R., & Chakraborti, A. K. Magnesium perchlorate as a new and highly efficient catalyst for the synthesis of 2, 3-dihydro-1, 5-benzothiazepines. Synthesis 2007, (4), 541-546.

4. **Khatik, G. L**., Pal, A., Apsunde, T. D., & Nair, V. A. A highly efficient methodology for 5-methyl-3-aryl-2-thiooxazolidin-4-ones using lithium perchlorate in DIPEA mediated

synthesis. Journal of Heterocyclic Chemistry 2010, 47(3), 734-739.

5. **Khatik, G. L.,** Pal, A., Mobin, S. M., & Nair, V. A. Stereochemical studies of 5-methyl-3-(substituted phenyl)-5-[(substituted phenyl) hydroxy methyl]-2-thiooxazolidin-4-ones. Tetrahedron Letters 2010, 51(28), 3654-3657.

6. **Khatik, G. L.**, Dube, N., Pal, A., & Nair, V. A. Highly efficient one-pot synthesis of 2-aminobenzoxazoles using triflic acid as a cyclodesulfurizing reagent. Synthetic Communications 2011, 41(17), 2631-2639.

7. **Khatik, G. L.,** Khurana, R., Kumar, V., & Nair, V. A. Asymmetric induction by (S)-4-isopropyl-1-phenylimidazolidin-2-thione in titanium-Mediated aldol reactions and its Aaplication in enantioselective synthesis of (R)-Baclofen. Synthesis 2011, 19, 3123-3132.

8. **Khatik, G. L**., Kaur, J., Kumar, V., Tikoo, K., Venugopalan, P., & Nair, V. A. Aldol derivatives of Thioxoimidazolidinones as potential anti-prostate cancer agents. European Journal of Medicinal Chemistry 2011, 46(8), 3291-3301.

9. Kumar, V., **Khatik, G. L.,** & Nair, V. A. Sterically controlled stereoregulation in aldol reactions of 3-aryl-1-alkyldihydrothiouracils. Synlett 2011, 2997–3001.

10. **Khatik, G. L.,** Kaur, J., Kumar, V., Tikoo, K., & Nair, V. A. 1, 2, 4-Oxadiazoles: A new class of anti-prostate cancer agents. Bioorganic & Medicinal Chemistry Letters 2012, 22(5), 1912-1916.

11. **Khatik, G. L.,** Kumar, V., & Nair, V. A. Reversal of selectivity in acetate aldol reactions of N-acetyl-(S)-4-isopropyl-1-[(R)-1-phenylethyl] imidazolidin-2-one. Organic Letters 2012, 14(10), 2442-2445.

12. Kumar, V., Pal, A., **Khatik, G. L.,** Bhattacharya, S., & Nair, V. A. Additive controlled, stereoselective benzylation of 2-thioxotetrahydropyrimidin-4 (1H)-ones via chiral induction from a remote stereocenter. Tetrahedron: Asymmetry 2012, 23(6), 434-442.

13. Kumar, V., **Khatik, G. L.,** Pal, A., Praneeth, M. R., Bhattarai, S., & Nair, V. A. A Facile Synthesis and Chemoselective Reactions of Dihydrothiouracils. Synlett 2012, 23(16), 2357-2362.

14. Kumar, V., Kumar, K., Pal, A., **Khatik, G. L.,** & Nair, V. A. Aldol reactions of 2-thioxotetrahydropyrimidin-4 (1H)-ones: stereoregulations from endo-and exocyclic chiral centres. Tetrahedron 2013, 69(6), 1747-1754.

15. **Khatik, G. L.,** Sharma, R., Kumar, V., Chouhan, M., & Nair, V. A. Stereoselective synthesis of (S)-dapoxetine: a chiral auxiliary mediated approach. Tetrahedron Letters 2013, 54(45), 5991-5993.

16. Kumar, V., Rachamalla, M., Nandekar, P., **Khatik, G. L.,** Sangamwar, A. T., Tikoo, K., & Nair, V. A. Design and synthesis of optically pure 3-aryl-6-methyl-2-thioxotetrahydropyrimidin- (1H)-ones as anti-prostate cancer agents. RSC Advances 2014, 4(71), 37868-37877.

17. Kaur, P., & **Khatik, G. L**. Advancements in non-steroidal antiandrogens as potential therapeutic agents for the treatment of prostate cancer. Mini Reviews in Medicinal Chemistry 2016;16(7):531-546.

18. Chaurasiya,S.; Kaur, P.; Nayak, S.K.; **Khatik, G. L***. Virtual screening for identification of novel potent EGFR inhibitors through Autodock Vina molecular modeling software. Journal of Chemical and Pharmaceutical Research 2016, 8(4):353-360

19. Kumar, K.; More, S. S.; Goyal, S.; Gangar, M.; **Khatik, G. L.**; Rawal , R.K; & Nair, V. A. A convenient synthesis of 4-alkyl-3-benzoylpyrroles from α,β-unsaturated ketones and tosylmethyl isocyanide. Tetrahedron Letters 2016, 257 (21), 2315-2319.

20. Kaur, P. & **Khatik, G.L***. Identification of novel 5-styryl- 1,2,4-oxadiazole/Triazole derivatives as the potential antiandrogens through molecular docking study. International Journal of Pharmacy and Pharmaceutical Sciences 2016;8(10):72-77.

21. Kaur, P., **Khatik, G.L** & Nayak, S.K. A Review on Advances in Organoborane-Chemistry: Versatile Tool in Asymmetric Synthesis. Current Organic Synthesis 2017, 14(5):665-82.

22. Kumar K, More SS, **Khatik GL**, Rawal RK, Nair VA. A Highly Stereoselective Chiral Auxiliary-assisted Reductive Cyclization to Furoindoline. Journal of Heterocyclic Chemistry, 2017, 54(5), 2696-2702.

23. Kaur, K, Kaur, P., Mittal, A., Nayak, SK., **Khatik, GL***. Design and molecular docking studies of novel antimicrobial peptides using Autodock molecular docking software. Asian Journal of Pharmaceutical & Clinical Research 2017, Sept, 28-31.

24. Pem, T., Gupta, V., **Khatik, GL**. Safe and unsafe drugs during pregnancy. Journal of Chemical and Pharmaceutical Research, 2016, 8(3):652-663.

25. Bhardwaj, S., **Khatik, GL**., Kaur, P., Nayak, SK. Computer aided drug design through molecular docking: Identification of selective COX-2 inhibitors as potential NSAIDs. Journal of Pharmacy Research, 2017, 11(6), 604-608.

26. Sah, A, **Khatik, GL**., Vyas, M., Yadav, P. A short review on anticancer investigations of Strychnos nux-vomica. International Journal of Green Pharmacy, 2016 (Suppl), 10 (3), S87-S90.

27. Nayak SK, **Khatik GL**, Narang R, Monga V, Chopra HK. p53-Mdm2 interaction inhibitors as novel nongenotoxic anticancer agents. Current Cancer Drug Targets. 2017, DOI: 10.2174/1568009617666170623111953.

28. Nayak SK, **Khatik GL**, Narang R, Chopra HK. Design and anticancer activity prediction of dihyropyrimidinone based novel inhibitors of P53 MDM2 interaction. Asian Journal of Pharmaceutical & Clinical Research 2017, Sept, 110-116.

29. Dhawan, S, Narang R, **Khatik GL**, Chopra HK., Nayak SK, Strategies for chemical synthesis of pyrazolone derivatives and their bio-significance. Journal of Chemical and Pharmaceutical Research, 2016, 8(5):969-981.

30. Kumar, U., Narang, R, Nayak, SK, **Khatik, GL**, Singh, SK. Synthesis, evaluation and molecular docking studies of Schiff base derived benzimidazole-2-thiols as an antimicrobial agent. Journal of Pharmacy Research, 2017,11(6),658-664

31. **Khatik GL***, Datusalia AK, Ahsan W, Kaur P, Vyas M, Mittal A, Nayak SK. A Retrospect Study on Thiazole Derivatives as the Potential Antidiabetic Agents in Drug Discovery & Developments. Current Drug Discovery Technologies. 2018,15(3), 163-177.

32. Mansoori MH, **Khatik GL**, Mishra V. Synthesis and pharmacological evaluation of pyridinyl-1, 3, 4-oxadiazolyl-ethanone derivatives as antimicrobial, antifungal and antitubercular agents. Medicinal Chemistry Research. 2018, 27(3), 744-755.

33. Nayak SK, **Khatik GL**, Narang R, Monga V. Role of Mdm2 Cascade in Human Cancers. Research Journal of Pharmacy and Technology. 2017;10(7):2236-42.

34. Chauhan, S, Kaur A, Vyas, M, **Khatik, GL**. Comparison of antidiabetic and antioxidant activity of wild and and cultivated variety of Rauwolfia serpentina. Asian J Pharm Clin Res, Vol 10, Issue 12, 2017, 404-406.

35. Kaur, G., Duggal N., **Khatik G.L**. Evaluation of hepatoprotective activity of the hydroalcoholic extract of leaves of Urtica dioica. Journal of Pharmacy Research, 2017, 11 (9), 1063-1066.

36. Amini M. H., Kalsi. V, Kaur. B, **Khatik, G.L.,** Lobo. R, Singh. G, Agarhari. U. C, Yele. S, Suttee. A. Phytochemical Screening and Antioxidant Activity of Heracleum afghanicum Kitamura leaves. Research Journal of Pharmacy and Technology. 2017;10(10):3498-502.

37. Kaur P, **Khatik GL**, Lithium Perchlorate Catalyzed Electrophilic Activation: A Convenient One-pot Synthesis of trans-cinnamic Acids. Letters in Organic Chemistry, 2018, 15 (8), 688-292.

38. Sah, A.K., Raj, S., **Khatik, G.L**., Vyas M. Nutritional profile of spinach and its antioxidant & antidiabetic evaluation. International Journal of Green Pharmacy 2017;11(03), 192-197.

39. Shivangni Raj, Anil Kumar Sah, **Khatik, GL.,** Vyas M. Pramod Yadav, P. K. Prajapati. Pharmaceutical Development and Standardization Mamajjaka Ghanavati. Asian Journal of Pharmaceutics. 2018;12(01), S62-S65.

40. Himanshu, Bhaskar, R., Sharma, N., Mehta, M., Singh, A., Yashwant, Yadav, N., **Khatik, G.L.,** Verma, S. Development and Evaluation of Buccoadhesive Film of Ropinirole Hydrochloride for the Treatment of Parkinson's Disease. International Journal of Drug Delivery Technology 2017; 7(2); 106-112.

41. Rozera, R., **Khatik, G.L.,** Gupta, V. Virtual Labs: Greener and economic approach for learning the Pharma-Lab. International Journal of Green Pharmacy 2017 11 (4), S663-S670.

42. Kaur, H., Yadav, P., Prajapati, P.K., **Khatik, G.L.,** Haque, A., Vyas, M., Verma, S.. Application of nanotechnology for Ayurvedic drugs and Formulations. Drug Invention Today 2018, 10 (5), 811-817.

43. Osanyinpeju, O.S., Bashary, R., Mittal, A., Vyas, M., Nayak, S.K, **Khatik, G.L**.* A comparative study of stereochemical effects of ani-prostate agents by molecular docking. Asian J Pharm Clin Res, 2018, 11 (Special issue 2), 76-80.

44. Dorice, M.H.C, Khurana, N., Sharma, N., **Khatik, G.L***. Identification of possible molecular targets of potential anti-parkinson drugs by predicting their binding affinities using molecular docking technique. Asian J Pharm Clin Res, 2018, 11 (Special issue 2), 28-32.

45. Bhatia, N., Kaur, H., **Khatik, G.L,** Sah, A.K., Yadav, P., Vyas, M. Pharmaceutical development, and standardization of Eladi Gutika. Drug Invention Today 2018, 10 (7), 1208-1212.

46. Riyaz, B., Bose, S., Sharma, S., **Khatik, G.L***. Nanotechnology-based phytopharmaceuticals in disease management: An update. Drug Invention Today 2018, 10 (8), 1450-1454.

47. Dubey, B.N., Bashary, R., Mehta, M., Satija, S., Khurana, N., Sharma, S., **Khatik, G.L.**

Identification of Possible Molecular Targets of Potential Anti-Alzheimer Drugs by Predicting their Binding Affinities Using Molecular Docking Technique. International Journal of Green Pharmacy, 2018, 16-21.

48. Datusalia AK, **Khatik GL,** Editorial: Thiazole Heterocycle: A Privileged Scaffold for Drug Design and Discovery. Current Drug Discovery Technologies, 2018, 15(3), 162.

49. Kaur P., Mittal A., Nayak SK, Vyas, M, Mishra V., **Khatik GL*.** Current Strategies and Drug Targets in the Management of Type 2 Diabetes Mellitus. Current Drug Targets, 2018;19(15):1738-1766.

50. Bashary, R., **Khatik, G.L*.** Design, and facile synthesis of 1,3 diaryl-3-(arylamino)propan-1-one derivatives as the potential alpha-amylase inhibitors and antioxidants. Bioorganic Chemistry 2019; 82: 156-162.

51. Shafi, Sana, Pawan Gupta, **Khatik, G.L.** and Jeena Gupta. "PPARγ: potential therapeutic

target for ailments beyond diabetes and its natural agonism." Current drug targets 2019,20: 1281-1294.

52. Kumar, Shubham, **Khatik, G.L.**, and Amit Mittal. "In silico Molecular Docking Study to Search New SGLT2 Inhibitor based on Dioxabicyclo [3.2. 1] Octane Scaffold." Current Computer-aided Drug Design 2020, 16: 145-154.

53. Puri, Diksha, **Khatik, G.L.** and Tamilvanan Shunmugaperumal. "Studies on olive-and silicone-oils-based Janus macroemulsions containing ginger to manage primary dysmenorrheal pain." Materials Science and Engineering: C 100 (2019): 276-285.

54. Famta, Paras, Mani Famta, Jaskiran Kaur, Rubiya Khursheed, Amanjot Kaur, **Khatik, G.L.**, Datta Maroti Pawde, Syed Nazrin Ruhina Rahman, and Tamilvanan Shunmugaperumal. "Protecting the Normal Physiological Functions of Articular and Periarticular Structures by Aurum Nanoparticle-Based Formulations: an Up-to-Date Insight." AAPS PharmSciTech 21, no. 3 (2020):1-16.

55. Kaur, Kawalpreet, and **Khatik, G.L.*** "Cancer Immunotherapy: An Effective Tool in Cancer Control and Treatment." Current Cancer Therapy Reviews 2020, 16: 62-69.

56. Bashary, Roqia, Manish Vyas, Surendra K. Nayak, Ashish Suttee, Surajpal Verma, Rakesh Narang, and **Khatik, G.L.***. "An Insight of Alpha-amylase Inhibitors as a Valuable Tool in the Management of Type 2 Diabetes Mellitus." Current Diabetes Reviews 2020, 16: 117-136.

57. Som, Sananda, Sachin Kumar Singh, **Khatik, G.L.** Bhupinder Kapoor, Monica Gulati, Gowthamarajan Kuppusamy, Nandha Kumar Anandhakrishnan et al. "Quality by Design-Based Crystallization of Curcumin Using Liquid Antisolvent Precipitation: Micromeritic, Biopharmaceutical, and Stability Aspects." ASSAY and Drug Development Technologies 2020: 11-33.

58. Kapoor, Bhupinder, Reena Gupta, Monica Gulati, Sachin Kumar Singh, **Khatik, G.L.** Manish Chawla, Krishna Veni Nagappan, Rubiya Khursheed, and Rajan Kumar. "High-Performance Liquid

Chromatography and Liquid Chromatography/Mass Spectrometry Studies on Stress Degradation Behavior of Sulfapyridine and Development of a Validated, Specific, Stability-Indicating HPLC Assay Method." ASSAY and Drug Development Technologies 2020, 18: 119-133.

59. Kaur, Paranjeet, Zahid Rafiq Bhat, Sana Bhat, Rakesh Kumar, Rajan Kumar, Kulbhushan Tikoo, Jeena Gupta, Navneet Khurana, Jaskiran Kaur, and **Khatik, G.L.***. "Synthesis and evaluation of New 1, 2, 4-oxadiazole based trans-acrylic acid derivatives as potential PPAR-alpha/gamma dual agonist." Bioorganic Chemistry (2020): 103867.

60. Narang, Rakesh, Raj Kumar, Sourav Kalra, Surendra Kumar Nayak, **Khatik, G.L.**, Gadekula Naresh Kumar, Kalvatala Sudhakar, and Sachin Kumar Singh. "Recent advancements in mechanistic studies and structure activity relationship of FoF1 ATP synthase inhibitor as antimicrobial agent." European journal of medicinal chemistry 182 (2019): 111644.

61. Kumar, Shubham, **Khatik, G.L.** and Amit Mittal. "Recent Developments in Sodium-Glucose Co-Transporter 2 (SGLT2) Inhibitors as a Valuable Tool in the Treatment of Type 2 Diabetes Mellitus." Mini Reviews in Medicinal Chemistry 20, no. 3 (2020): 170-182.

62. Deepshikha Patle, Manish Vyas, **Khatik, GL*.** A Review on natural products and herbs used in the management of diabetes. Current Diabetes Reviews. 2021;17(2):186-197.

63. Choudhary N, **Khatik GL,** Sharma R, Khurana N, Lobo R, Bhatt S, Tewari D, Suttee A. Ameliorative potential of Operculina turpethum against streptozotocin-induced diabetes in rats: biochemical and histopathological studies. 3 Biotech. 2021,1(6):1-6.

64. Choudhary N, Prabhakar PK, **Khatik GL,** Chamakuri SR, Tewari D, Suttee A. Evaluation of Acute toxicity, In-vitro, In-vivo Antidiabetic Potential of the Flavonoid Fraction of the plant Chenopodium album L. Pharmacognosy Journal. 2021,13(3).

65. Choudhary N, **Khatik GL,** Suttee A. The possible role of Saponin in Type-II Diabetes-A review. Current diabetes reviews. 2021, 17(2),107-21.

66. Patle D, Vyas M, **Khatik GL*.** A review on natural products and herbs used in the management of diabetes. Current diabetes reviews. 2021 Feb 1;17(2):186-97.

67. Bhatt NK, Haneef J, Vyas M, **Khatik GL*.** Development of L-lysine Amino Acid-based Cocrystal of Telmisartan Using Crystal Engineering Approach to Improve Solubility, Dissolution, and Micrometric Properties. Current Drug Delivery 2021;18(5):596-606.

68. Vyas M, Simbo DA, Mursalin M, Mishra V, Bashary R, **Khatik GL***. Drug Delivery Approaches for Doxorubicin in the Management of Cancers. Current Cancer Therapy Reviews. 2020;16(4):320-31.

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75. Kaur P, **Khatik GL*.** An overview of computer-aided drug design tools and recent applications in designing of antidiabetic agents. Current Drug Targets. 2021, 22(10):1158-1182.

76. Pawge G, **Khatik GL*.** p53 regulated senescence mechanism and role of its modulators in age-related disorders. Biochemical Pharmacology. 2021,114651.

77. Kaur J, Gulati M, Famta P, Corrie L, Awasthi A, Saini S, **Khatik GL**, Bettada VG, Madhunapantula SV, Paudel KR, Gupta G. Polymeric micelles loaded with glyburide and vanillic acid: I. Formulation development, in-vitro characterization and bioavailability studies. International Journal of Pharmaceutics. 2022 ;624:121987.

78. Patel S, Bansoad AV, Singh R, **Khatik GL**. BACE1: A Key Regulator in Alzheimer's Disease Progression and Current Development of its Inhibitors. Current Neuropharmacology. 2022 Jun 1;20(6):1174-93.

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80. Samim KS, **Khatik GL**, Datusalia AK. Strategies for treatment of disease-associated dementia beyond Alzheimer disease: An update. Current Neuropharmacology. 2022.

81. Nair VA, Mallikarjunaswamy AM, **Khatik GL**, Vishwa P, Kandaiah S. A convenient synthesis of 3-arylideneindolin-2-ones and evaluation of their photoelectrochemical properties. Organic Communications. 2022 ;15(3).

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84. Patle D, Khurana N, Kaur P, **Khatik GL**. Design, Synthesis, and Biological Evaluation of Coixol-based Derivatives as Potential Antidiabetic Agents. Journal of Molecular Structure. 2022:134861.

Patents (filed & published):

1. Drug delivery systems of Spinacea oleracea (IN201811022935)
2. Self nano emulsifying drug delivery system (snedds) of enicostemma littorale for the management of diabetes mellitus (IN201811022937)
3. Pharmaceutical composition of Croton tiglium for antidiabetic activity (TEMP/E-1/4826 /2019-DEL)
4. Novel formulation of Calotropis procera for the management of diabetes mellitus (TEMP/E-1/4831 /2019-DEL)
5. An oral pharmaceutical composition for alpha-amylase Inhibition (TEMP/E-1/28883/2019-DEL)
6. Method for chemical synthesis of kynurenic acid, ethyl ester and amide derivatives thereof (IN 202211065540)

Book:

1. Medicinal Chemistry –III (G. Marriappan & G.L. Khatik), eReadOn, Doonville Publishers Pvt. Ltd. India. https://ereadon.com/books/medicinal-chemistry-iii/

Book chapter:

1. Kaur, J., Famta, P., Khurana, N., Vyas, M., & **Khatik, G. L.** “Biomedical applications of 4-hydroxycoumarin as a fungal metabolite and its derivatives” Book chapter, In J. Singh & P. Gehlot (Eds.), New and Future Developments in Microbial Biotechnology and Bioengineering (1st Ed.). pp 209-218. Elsevier.
2. Kaur, K., Famta, F., Khurana, N.,Vyas, M., **Khatik, G.L.** Pharmacotherapy of Type 2 Diabetes. Obesity and Diabetes, pp 679-694, Springer Nature.

3. **Khatik GL**, Srivastava A, Divita KM. Five-membered ring fused pyrimidine-based derivatives and their biological properties. In Fused Pyrimidine-Based Drug Discovery 2023, pp. 51-116. Elsevier.
4. Mahajan, A. T., **Khatik, G. L**., & Chaudhary, S. (2022). Antibiofilm properties of biosurfactants: A tool against the food pathogens. In Dr. Inamuddin, Charles Adetunji (Eds.)Applications of Next Generation Biosurfactants in the Food Sector (1st Ed., Ch. 5) Elsevier, Academic Press.

Key Achievements:

1. Qualified the GATE from IIT, Delhi, INDIA, 2003 and 2004.
2. Research Fellowship from NIPER SAS Nagar, INDIA, 2007-2008.
3. JRF/SRF in Engineering & Technology UGC, INDIA, 2008-2012. (Project: Development of second generation of antiandrogens)
4. Research findings were presented as a poster entitled “Dual Activation Role of Water in Metal-free C-S Bond Formation” at the National Conference on “National Symposium on New Challenges in Chemistry” organized by Dept. of Chemistry, Guru Nanak Dev University, Amritsar, India during 20^{th}-21^{st} March 2006 which was awarded as one of the best poster.
5. Awarded as Young Scientist under the scheme of young scientist SERB, DST Govt. of India.
6. Design, Synthesis, and Evaluation of Novel Heterocyclic Scaffolds as Potential Antidiabetic Agents Targeted to PPARα/γ Dual Agonist, SERB-DST, Govt of India (2577600 INR).
7. Received “Vice Chancellor Research Excellence Award -2016” at Lovely Professional University.
8. Received “Research Appreciation Award -2017” at Lovely Professional University.
9. Research Appreciation Award, Lovely Professional University, 2018
10. Expert member “Drug Discovery Challenge/Hackathon for development of anti-Covid-19 molecules” organized by MHRD Innovation Cell (DDH2020)

Conference & Seminars:

1. Participated in the workshop on “Green Chemistry” September 3-4, 2007 held at NIPER S.A.S. Nagar
2. Participated in “Carbo-XXII” conference ” December 13-15, 2007 held at NIPER S.A.S. Nagar
3. Research findings were presented as a poster entitled “Synthesis, stereochemical investigations and in vitro evaluation of anti (±)5-methyl-(3-substituted phenyl)-5-[(substituted phenyl)-hydroxyl methyl]-2-thixooxazolidin-4-ones on prostate cancer cell

lines" The Ramanbhai Foundation 5th International Symposium "Advances in Translational Research & Medicines" Held on: Feb 1-4, 2011, Venue: Zydus Research Centre, Ahmedabad (India)

4. Participated in international conference on "Emerging Trends in Chemistry" February11-12, 2011 held at Panjab University, Chandigarh.
5. Research findings were presented as a poster entitled "Dual Activation Role of Water in Metal-free C-S Bond Formation" at the National Conference on "National Symposium on New Challenges in Chemistry" organized by Deptt of Chemistry, Guru Nanak Dev University, Amritsar, India during 20th-21st March 2006 which was awarded as one of the best poster.
6. Workshop on "Molecular Modelling and Pharmainformatics" Nov. 1-5, 2004 at NIPER.
7. WHO Sponsored workshop on "Impact of TRIPS on Pharmaceutical Prices" Feb. 14th, 2005 at NIPER.
8. Participation and Oral presentation of "Research towards the Development of Novel Anti-prostate Cancer Agents" at "Bhartiya Vigyan Sammelan and Expo 2012" held at Lovely Professional University Chaheru from 11-14 Oct, 2012.
9. Participation and LOC member in SPER 3rd annual conference "Recent Trends in Pharma Industry: Bridging the Gaps in Pharmaceutical Education" held at Lovely Professional University, Jalandhar (Punjab), 8th March 2014.
10. Participated in workshop sponsored by IPGA "National Seminar Cum Workshop on Pharmacovigilance" held at Lovely Professional University, Jalandhar (Punjab), 26th March 2016.
11. Participated and LOC member in National Conference LPUNASYACON-2016 "Amalgamation of Recent Pharmaceutical Developments in Ayurveda" held at Lovely Professional University, Jalandhar (Punjab), 22-23rd April 2016.
12. Participated and LOC member in International Conference ICP-2017 "Pharmacists: Catalysts for Change" held at Lovely Professional University, Jalandhar (Punjab), 78th April 2017.
13. ICP-2017; Pharmacists: catalysts for change, Lovely Professional University, 7-8 April.
14. Participated in Systematic strategies for Successful positioning of Pharmaceutical products held on 02-03 June 2017, organized by HRDC, Lovely Professional University.
15. Participated in three days international symposium on pharmaceutical, biotechnology and chemical patent law, held on 27-29th Sept 2017 at Stellar Gymkhana, Greater Noida, Organized by IIPRD.
16. Participated and LOC member in Integrated Conference on Ayurveda, Agriculture and Pharmacy Science 2018 held at Lovely Professional University, Jalandhar (Punjab), 13-14h Oct 2018.
17. Attendance one Day International Symposium in Delhi on Streamlining Drug Design organized by Zastra Innovations Pvt. Ltd., 30, Jan 2019.
18. Participated in 5 days workshop on research informed and research-oriented teaching in pharmaceutical sciences at Central University of Rajasthan, 20-24 Aug 2019.

19. LOC member and participated in ICP-2019; Pharmacy: Realigning the Focus on Health, Lovely Professional University, 13-14 Sept 2019.
20. Participated and presented oral presentation “In-silico evaluation and identification of potent antidiabetic agents in the management of diabetes using computer assisted drug designing software”. International Conference (SPER-Bangkok-2019). Fostering Pharmaceutical Innovations to Bridge the Gap in Pharmaceutical Research and Industry. October 3 - 4, 2019, Narai Hotel, Bangkok, Thailand.
21. Webinar (20th August, 2020) organized by the Department of Chemistry, Mizoram University, Aizawl (India) on the Topic entitled, ‘MIADMSA, A new Arsenic antidote: Journey from lab to clinic.
22. Attended IIC Regional Meet 2022 at AKTU on 29th August,2022

Invited lectures:

1. One day seminar on “Zonal Awareness Program (North zone) Development and understanding about the Pharmacopoeial monograph for Herbal drugs and Phytopharmaceuticals” at Abhilashi College of Pharmacy, Mandi (HP) in technical support with Indian Pharmacopoeia Commission, Ghaziabad. 28 sept 2019.
2. Fragment-based drug design: A tool for design and discovery of lead compounds. Drug Discovery Hackathon, AICTE. 12 Aug 2020.
3. Guest lecture delivered online on 8th June, 2021 (B R Nahata College of Pharmacy, Mandsaur) on “Stereochemical aspects in drug action: Navigating an exploration of chiral auxiliary in stereoselective synthesis".
4. Guest lecture delivered online on 31st May, 2022 (Nirmala College of Health Science, Chalakudy,Thrissur) on “Stem Cell Biology: A Drug Discovery Tool in Alzheimer’s Disease".

Organised conference/webinar:

1. Joint Organising Secretary in 12th NIPER-R International E-Symposium, held on 15-16 Feb, 2021.
2. Vocal for Local to boost innovative ideas to small scale entrepreneurship” by Dr. Rahul Taneja who is an IPR Scientist at the Patent Information Centre, Department of Science & Technology, Govt. of Haryana (23 Sept 2020).
3. “Discovery of Small Heterocyclic Molecules as a Kinase Inhibitor” by Dr. Brahmam Pujala Associate Director Integral BioSciences Pvt. Ltd (14 Jan 2021).
4. “Smart protein engineering for synthesis of drugs/drug intermediates” by Dr. Pankaj Soni
5. Senior Research Advisor, Pfizer, USA on 8th Feb 2021.
6. One Day International Webinar on “Chromatographic methods for Purification and Analysis of Pharmaceutical Products” 22 Aug 2021

Teaching:

- Organic Chemistry
- Analytical Chemistry
- Medicinal Chemistry
- Spectroscopy
- Advanced Organic Chemistry
- Advanced Analytical Chemistry
- Research Methodology

- Logic inorganic Synthesis
- Basics of Drug Action
- Carbohydrate Chemistry
- Peptide Chemistry

PhD Thesis supervised (Lovely Professional University):

S.No.	Title of Thesis	Name of the student or scholar	Supervisor/ co-supervisor	Year of degree awarded
1	Design, Synthesis and Evaluation of Novel Heterocyclic Scaffolds as Potential Anti-Diabetic Agents Targeted to PPAR α/γ Dual Agonist	Paranjeet Kaur	Supervisor	2019
2	Development of Janus Emulsion containing *Trigonella foenum-graecum* and *Zingiber officinale* for reducing the pain intensity in primary dysmenorrheal condition	Diksha Puri	Co-Supervisor	2019

Current Funding Description:

Completed Projects:

1. Project Title: “Design, synthesis, and evaluation of novel heterocyclic scaffolds as potential antidiabetic agents targeted to PPARα/γ dual agonist”
Duration: 3 Years (From Oct 2015 to Oct 2018)
Total Budget: 25.77 Lakhs
Project Number: SB/FT/CS-204/2014
Funding Agency: SERB-DST, New Delhi
As PI

2. Project Title: Development of SOPs and Standardization of Different Preparation Techniques of Netra Putapaka Formulation for Ophthalmic Use
Duration: 2 years
Total budget: 13.6 lakh
Funding agency: CCRAS- New Delhi
As Co-I

Ongoing Projects

3. Project Title: “Designing of senolytic agents for the treatment of Alzheimer’s disease”
Duration: 3 Years (From March 2022 to Feb 2025)
Total Budget: 39.43 Lakhs
Project Number: EEO/2021/000114
Funding Agency: SERB-DST, New Delhi
As PI

4. Project title: Development of modified kynurenic acid-based scaffolds for treatment of post-traumatic stress disorder
Duration : 3 years
Total budget: 6 lakh
Funding Agency: UPCST
As Co-I

Dr. Gopal Lal Khatik