

Dr. Subhash Chander

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CAREER OBJECTIVE

To work in challenging environment which provides good opportunity to learn, grow, and improve skills, and knowledge for professional growth.

RESEARCH AREAS

Broad Research Areas: Drug Discovery, Computational Chemistry, Medicinal & Synthetic Chemistry and Phytochemistry

Core Expertise: Design, synthesis, and biological evaluation of target specific drugs, special emphasis on HIV-1, Tuberculosis, Leishmania and Cancer.

ACADEMIC QUALIFICATIONS

<i>Course</i>	<i>Board/University</i>	<i>Institution</i>	<i>Year of passing</i>	<i>Mark</i>
Ph.D (Pharmaceutical Chemistry)	BITS Pilani, (Pilani Campus)	Dept. of Pharmacy, BITS Pilani	2017	Awarded
M.S. Pharma	NIPER	National Institute of Pharmaceutical Education and Research, Raebareli	2011	8.00 CGPA
B. Pharma	GJU Sc & Tech	Dept. of P'ceutical Science, GJU	2009	63.58%
12 th	Haryana Board	Govt. Senior Sec. School, HANSI	2004	68.4%
10 th	Haryana Board	P.C.S.D. Senior Sec. School, HANSI	2002	78.33%

PRESENT STATUS

Working as Assistant Professor-II in Amity Institute of Phytochemistry & Phytomedicine (AIP&P), Amity University, Noida since 16 March, 2020.

PROFESSIONAL EXPERIENCE

Sr. No.	Name of Institute/Organization	Designation	From	To	Total
1	Amity Institute of Phytomedicine & Phytochemistry, Noida	Assistant Professor-II	16 th March-2020	Present	--
2	School of Pharmacy, Maharaja Agrasen University, Baddi	Assistant Professor	5 th April-2017	6 th March-2020	2 year, 11 months
3	Dept. of Pharmacy, BITS Pilani	Instructor (part time)	Jan. 2013	March 2017	4 Year, 2 months
4	Jubilant Chemsys, Noida	Research Associate	6 th July-2011	18 th Oct-2012	1 Year, 4 months

RESEARCH SUMMARY

More than 50 publications in SCI/Scopus indexed journals with an average impact factor more than 3.5. Completed two industry-sponsored project and four projects is in progress. Discovered several nano molar potent hits against HIV-1, Mycobacterium tuberculosis and Leishmania. Filed four patents and transferred one technology to industry.

TEACHING SUMMARY

More than 12 years of research and teaching experience. Taught to B. Pharm, M. Pharm and PhD students. Subjects taught are: Pharmaceutical/Medicinal Chemistry, Computer Aided Drug Design, Analytical Chemistry, Instrumental Methods of Analysis, Pharmaceutical Inorganic Chemistry, Pharmacology, and Organic Chemistry.

TRAINING DETAILS

- Completed 6 weeks Technology Development Programme (TEDP) in 'Intellectual Property Rights' from 1st Feb. to 19th March, organized by National Institute of Pharmaceutical Education & Research (NIPER), Hyderabad, supported by Department of Science & Technology (DST), Govt. of India.
- Worked as research trainee in Central Drug Research Institute, (CDRI) Lucknow for one year.
- Completed one and a half month industrial training in parenteral division of Martin & Brown Pharmaceuticals, Hisar.

PROFESSIONAL MEMBERSHIP

- Registered Pharmacist and Member of Haryana State Pharmacy Council
- Life Member of Chandigarh Region Innovation and Knowledge Cluster (CRIKC)
- Life Member of Association of Pharmaceutical Teachers of India (APTI)
- Life Member of Indian Pharmacy Graduates' Association (APGA)

ACHIVEMENT/ RECOGNITIONS

- Received Start-up research grant from SERB in the year 2022.
- Appointed as Guest Associate Editor of 'Frontiers in Pharmacology' a prestigious journal having I.F.: 6 and ranked in Q1 quartile in Scopus.
- Reviewer of projects submitted under Core Research Grant (CRG), SERB, Govt. of India.
- Received International Travel Support (ITS) from SERB for presenting research work in the 20th Tetrahedron Symposium, hosted by Elsevier in 2019 at Bangkok, Thailand.
- Received recognition from Elsevier for outstanding contribution in reviewing
- Recognized as Ambassador of Bentham Sciences, an international publisher for the year 2018.
- Qualified BITS Ph.D. entrance examination
- Selected as Research Fellow in DST sponsored project, worked as JRF and SRF
- Qualified GATE-2009 (95 percentile.)
- Qualified NIPER-2009 (AIR-387)
- Received third prize for best oral presentation in the national conference held at Baddi University of Emerging Sciences & Technologies, Baddi on 11 May 2017.
- Reviewer of reputed journals published by Elsevier, Bentham Sciences and Dove Press.

AREAS OF EXPERTISE

- Good proficiency in writing of the research proposals for availing grant (from the funding agencies like DST, CSIR and DBT), writing of yearly progress report and project completion report.
- Extensive experience in drug designing, prediction of drug likeness behavior of designed compounds via *in-silico* studies
- Excellent bench work skills and well versed with the modern synthetic organic chemistry.
- Expertise in multi-step heterocyclic synthesis and organic transformations from milligram to kilogram scale
- Proficiency in compound analysis through various spectroscopic techniques like IR, LC-MS, ¹H NMR, ¹³C NMR and elemental analysis
- Expertise in handling of instruments UV/Visible spectrophotometer, polarimeter, CHNS analyzer, IR, LC-MS, flame photometer, microwave instrument
- Expertise in techniques such as column chromatography, flash chromatography, preparative TLC, HPLC and re-crystallization
- Expertise in screening of compounds or formulation against the specific enzymatic targets via ELISA assays kit
- Excellent laboratory skills in screening of compounds or formulation against various bacterial and fungal strains under aseptic conditions

COMPUTER PROFICIENCY

- Computer aided drug design (CADD) using Autodock and Schrödinger software package (Glide docking, Structure based virtual screening, Shape based screening, Qik-prop etc)
- Application Software like Chemdraw, Topspin, MestRenova, admetSAR, J Chem for excel, Molinspiration, DruLiTo etc
- Microsoft-M S Office

COMMUNICATION AND INTERPERSONAL SKILLS

- Excellent communication skills
- Encouraging attitude with a strong capability of inspiring others
- Exceptional listening and mediating capabilities
- Responsible attitude aimed at ensuring positive outcomes of assigned projects
- Excellent relationship building skills
- Excellent ability to adapt to changing work environments

LIST OF PUBLICATIONS

International Journals (Selected Journals)

1. Dalbir Singh, Mona Piplani¹, Harsha Kharkwal, Sankaranarayanan Murugesan, Yogendra Singh, Amit Aggarwal, **Subhash Chander***. Anticancer Potential of Compounds Bearing Thiazolidin-4-One Scaffold: Comprehensive Review' published in '**Pharmacophore**', 14(1) 2023, Pages: 56-70.
2. Goyal A, Kharkwal H, Piplani M, Singh Y, Murugesan S, Aggarwal A, Kumar P, **Chander S***. Spotlight on 4-substituted quinolines as potential anti-infective agents: Journey beyond chloroquine. **Arch Pharm** (Weinheim). 2023 Mar;356(3):e2200361. doi: 10.1002/ardp.202200361.
3. Hasan AH, Shakya S, Hussain FHS, Murugesan S, **Chander S**, Pratama MRF, Jamil S, Das B, Biswas S, Jamalis J. Design, synthesis, anti-acetylcholinesterase evaluation and molecular modelling studies of novel coumarin-chalcone hybrids. **J Biomol Struct Dyn**. 2023 Jan 2:1-13. doi: 10.1080/07391102.2022.2162583.
4. Hamaamin Hussen N, Hameed Hasan A, Jamalis J, Shakya S, **Chander S**, Kharkwal H, Murugesan S, Ajit Bastikar V, Pyarelal Gupta P. Potential inhibitory activity of phytoconstituents against black fungus: In silico ADMET, molecular docking and MD simulation studies. **Comput Toxicol**. 2022 Nov;24:100247. doi: 10.1016/j.comtox.2022.100247.
5. A. H. Hasan, N. H. Hussen, S. Shakya, J. Jamalis, M. R. Fadhil Pratama, **S. Chander**, H. Kharkwal, S. Murugesan. In silico discovery of multi-targeting inhibitors for the COVID-19 treatment by molecular docking, molecular dynamics simulation studies, and ADMET predictions. **Structural Chemistry**, 33, 1645–1665 (2022). <https://doi.org/10.1007/s11224-022-01996-y>

6. Joshi DD, Somkuwar BG, Kharkwal H, **Chander S**. Aroma based varieties of Capsicum chinense Jacq., geographical distribution and scope for expansion of the species. **Journal of Applied Research on Medicinal and Aromatic Plants**. 29 (2022) 100379.
7. Hasan AH, Murugesan S, Amran SI, **Chander S**, Alanazi MM, Hadda TB, Shakya S, Pratama MRF, Das B, Biswas S, Jamalis J. Novel thiophene Chalcones-Coumarin as acetylcholinesterase inhibitors: Design, synthesis, biological evaluation, molecular docking, ADMET prediction and molecular dynamics simulation. **Bioorganic Chemistry** 119 (2022) 105572.
8. Ashoka P, Faheem, Kumar BK, **Chander S**, Chandra Sekhar KVG, Sankaranarayanan M. Anti-infective Potential of Manzamine Alkaloids - A Review. **Medicinal Chemistry**, 2022;18(6):629-654. doi: 10.2174/1573406417666210803101740
9. **S. Chander**, G.T. Kulkarni, N. Dhiman, H. Kharkwal. Protein Based Nanohydrogels for Bioactive Delivery. **Frontiers in Chemistry**. 9 (2021) 573748.
10. Faheem, BK Kumar, KVG Chandra Sekhar, **S. Chander**, S Kunjiappan and S Murugesan. 1,2,3,4-Tetrahydroisoquinoline (THIQ) as privileged scaffold for anticancer de novo drug design. **Expert Opinion on Drug Discovery**. 16 (2021) 1119-1147.
11. H. Kharkwal, B.K. Kumar, S. Murugesan, G. Singhvi, P. Avasthi, A. Goyal, J. Jamalis, **S. Chander***. Search for new therapeutics against HIV-1 via dual inhibition of RNase H and integrase: current status and future challenges. **Future Medicinal Chemistry**. 13 (2021) 269-286.
12. Faheem, BK Kumar, KVG Chandra Sekhar, **S Chander**, S Kunjiappan and S Murugesan. Medicinal chemistry perspectives of 1,2,3,4-tetrahydroisoquinoline analogs – biological activities and SAR studies. **RSC Advances**. 11 (2021) 12254-12287.
13. B. Malhotra, G.T. Kulkarni, N. Dhiman, D.D. Joshi, **S Chander**, A. Kharkwal, A. K. Sharma, H. Kharkwal*. Recent advances on *Berberis aristata* emphasizing *berberine* alkaloid including phytochemistry, pharmacology and drug delivery system. **Journal of Herbal Medicine** 27 (2021) 100433.
14. N.S. Razak, J. Jamalis, **S. Chander**, R.A. Wahab, D.P. Bhagwat, T.K. Smith, M. Sankaranarayanan. Coumarin-Oxadiazole Derivatives: Synthesis and Pharmacological Properties. **Mini-Reviews in Organic Chemistry**. 17 (2020) 780-794.
15. A. Misra, D. Kishore, V.P. Verma, S. Dubey, **S. Chander**, N. Gupta, S. Bhagyawant, J. Dwivedi, Z.A. Allothman, S.M. Wabaidur, S. Sharma. Synthesis, biological evaluation and molecular docking of pyrimidine and quinazoline derivatives of 1,5-benzodiazepine as potential anticancer agents. **Journal of King Saud University-Science** 32 (2020) 1486-1495
16. V. K. Madduluria, N. Baig, **S. Chander**, S. Murugesan, A.K. Sah. Mo(VI) complex catalysed synthesis of sulfones and their modification for anti-HIV activities **Catalysis Communications**. 2020 (137) 105931.
17. M. Piplani, D.P. Bhagwat, G. Singhvi, M. Sankaranarayanan, R. Balana-Fouce, T. Vats and **S. Chander***, Plants as Sources of Potential Larvicidal Agents: Reports from 2000 to 2018, **Experimental Parasitology**, 2019 (199) 92-103.
18. Ashok P, **Chander S**, Smith TK, Prakash Singh R, Jha PN, Sankaranarayanan M. Biological evaluation and structure activity relationship of 9-methyl-1-phenyl-9H-pyrido[3,4-b]indole derivatives as anti-leishmanial agents. **Bioorganic Chemistry** 2019 (84) 98-105.

19. B. Pallavi, R. Prakash Singh, P.N. Jha, **S. Chander**, S. Murugesan, P. Sharma, P. Shukla. Green Synthesis, in-vitro Antimicrobial Evaluation, Docking, and SAR Studies of Potent. **Letters in Organic Chemistry**, 2019 (16) 874-883.
20. S. Mishra, M. Kaur, **S. Chander**, S. Murugesan, L. Nim, D.S. Arora, P. Singh. Rational modification of a lead molecule: Improving the antifungal activity of indole - triazole - amino acid conjugates. **European Journal of Medicinal Chemistry** 2018 (155) 658-669.
21. **S. Chander**, C.R. Tang, A. Penta, P. Wang, D.P. Bhagwat, P. Patel, S. Sankpal, Y.T. Zheng, M. Sankaranarayanan. Hit optimization studies of 3-hydroxy-indolin-2-one analogs as potential anti-HIV-1 agents. **Bioorganic Chemistry**. 79 (2018) 212-222.
22. H. M. Al-Maqtari, J. Jamalis, **S. Chander**, H.M. Sirat, S. Naveen, N.K. Lokanath, S.P. Bohari, D.P. Bhagwat, M. Sankaranarayanan. Synthesis, in silico and Antifungal Studies of Novel Thiophene Analogues Containing Pyrazole Ring. **Letters in Drug Design & Discovery**. 15, (2018) 1202-1210.
23. **S. Chander**, P. Ashok, R.M. Reguera, M.Y. Perez-Pertejo, R. Carbajo-Andres, R. Balana-Fouce, K.V.G. Chandra Sekhar, M. Sankaranarayanan. Synthesis and anti-leishmanial evaluation of benzopiperidine, benzopyridine and phenyl piperazine based compounds. **Experimental Parasitology**. 189 (2018) 49-60
24. P. Ashok, **S. Chander**, T.K. Smith, M. Sankaranarayanan. Design, synthesis and biological evaluation of piperazinyl- β -carboline derivatives as anti-leishmanial agents. **European Journal of Medicinal Chemistry**. 150 (2018) 559-566.
25. V. Parthiban, I. Kaliappan, **S. Chander**, M. Sankaranarayanan. Design, synthesis and α -amylase inhibitory activity of novel chromone derivatives. **Bioorganic Chemistry**. 74 (2017) 158-165.
26. **S. Chander**, R.K. Pandey, A. Penta, B.S. Choudhary, M. Sharma, R. Malik, V.K. Prajapati, S. Murugesan. Molecular Docking and Molecular Dynamics Simulation Based Approach to Explore the Dual Inhibitor Against HIV-1 Reverse Transcriptase and Integrase. **Combinatorial Chemistry & High Throughput Screening**. 20 (2017) 734-746.
27. **S. Chander**, C.R. Tang, H.M. Al-Maqtari, J. Jamalis, A. Penta, T.B. Hadda, H.M. Sirat, Y.T. Zheng, M. Sankaranarayanan. Synthesis and study of anti-HIV-1 RT activity of 5-benzoyl-4-methyl-1,3,4,5-tetrahydro-2H-1,5-benzodiazepin-2-one derivatives. **Bioorganic Chemistry**. 72 (2017) 74-79
28. P. Ashok, **S. Chander**, L.M.C. Chow, I. Wong, R.P. Singh, P.N. Jha, M. Sankaranarayanan. Synthesis and in-vitro anti-leishmanial activity of (4-arylpiperazin-1-yl)(1-(thiophen-2-yl)-9H-pyrido[3,4-b]indol-3-yl)methanone derivatives, **Bioorganic Chemistry**. 70 (2017) 100-106.
29. **S. Chander**, P. Wang, P. Ashok, L.M. Yang, Y.T. Zheng, S. Murugesan. Design, synthesis and anti-HIV-1 RT evaluation of 2-(benzyl(4-chlorophenyl)amino)-1-(piperazin-1-yl)ethanone derivatives, **Bioorganic & Medicinal Chemistry Letters**. 27 (2017) 61-65.
30. S. Amaroju, M.N. Kalaga, S. Srinivasarao, A. Napiorkowska, E. Augustynowicz-Kopec, S. Murugesan, **S. Chander**, R. Krishnan, K.V.G. Chandrasekhar. Identification and development of 1-((1-(substituted)-1H-1,2,3-triazol-4-yl)pyrazolo[4,3-c]pyridine-5(4H)-carboxamides as Mycobacterium tuberculosis Pantothenate synthetase inhibitors, **New Journal of Chemistry**. 41 (2017) 347-357
31. H.M. Al-Maqtari, J. Jamalis, T.B. Hadda, M. Sankaranarayanan, **S. Chander**, N.A. Ahmad, H.M. Sirat, I.I. Althagafi, Y.N. Mabkhot. Synthesis, characterization, POM analysis and antifungal activity of novel heterocyclic chalcone derivatives containing acylated pyrazole, **Research on Chemical Intermediates**. 43 (2017) 1893-1907.
32. P. Ashok, **S. Chander**, A. Tejeria, L.G. Calvo, R.B. Fouce, S. Murugesan. Synthesis and anti-leishmanial evaluation of 1-phenyl-2,3,4,9-tetrahydro-1H- β -carboline derivatives

- against *Leishmania infantum*, **European Journal of Medicinal Chemistry**. 123 (2016) 814-821.
33. **S. Chander**, P. Ashok, B.M. Maira, C. Davie and S. Murugesan. Design, synthesis and biological evaluation of novel tetrahydroquinoline based propanehydrazides as antitubercular agents, **Letters in Drug Design and Discovery**. 14 (2017) 293-300.
 34. **S. Chander**, P. Ashok, D. Cappoen, P. Cos, S. Murugesan. Design, synthesis and biological evaluation of novel quinoline-based carboxylic hydrazides as anti-tubercular agents, **Chemical Biology & Drug Design**. 88 (2016) 585-591.
 35. **S. Chander**, P. Wang, P. Ashok, L.M. Yang, Y.T. Zheng, S. Murugesan. Rational design, synthesis, anti-HIV-1 RT and antimicrobial activity of novel 3-(6-methoxy-3,4-dihydroquinolin-1(2H)-yl)-1-(piperazin-1-yl)propan-1-one derivatives, **Bioorganic Chemistry**. 67 (2016) 75-83.
 36. **S. Chander**, P. Ashok, Y.T. Zheng, P. Wang, K.S. Raja, A. Taneja, S. Murugesan. Design, synthesis and in-vitro evaluation of novel tetrahydroquinoline carbamates as HIV-1 RT inhibitor and their antifungal activity, **Bioorganic Chemistry**. 64 (2016) 66-73.
 37. **S. Chander**, P. Ashok, R.P. Singh, P.N. Jha, Y.T. Zheng, P. Wang and S. Murugesan. Rational Design, Synthesis, Anti-HIV-1 RT and Anti-microbial Activity of Novel 2-(6,7-dimethoxy-3,4-dihydroisoquinolin-2(*IH*)-yl)-*N*-phenylpropanamide Derivatives. **Anti-Infective Agents**, 14 (2016) 63-73.
 38. N. Baig, R.P. Singh, **S. Chander**, P.N. Jha, S. Murugesan, A.K. Sah, Synthesis, evaluation and molecular docking studies of amino acid derived N-glycoconjugates as antibacterial agents, **Bioorganic Chemistry**. 63 (2015) 110-115.
 39. **S. Chander**, A. Penta, A. Singh, S. Murugesan. De-novo design, synthesis and evaluation of novel 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline derivatives as HIV-1 reverse transcriptase inhibitors, **Chemistry Central Journal**. 9 (2015) DOI: 10.1186/s13065-015-0111-6.
 40. **S. Chander**, A. Penta, S. Murugesan. Structure-based virtual screening and docking studies for the identification of novel inhibitors against wild and drug resistance strains of HIV-1 RT, **Medicinal Chemistry Research**. 24 (2015) 1869-1883.
 41. **S. Chander**, P. Ashok, R. Singh, P.N. Jha, S. Murugesan. A Rapid, Green, Efficient Microwave-Assisted Synthesis and Antimicrobial Activity of Novel Glycinamide of 6,7 Dimethoxy-1, 2, 3, 4-Tetrahydroisoquinolines, **Current Microwave Chemistry**. 2 (2015) 44-52.
 42. **S. Chander**, A. Penta, S. Murugesan, In-silico design and docking study of novel Tetrahydroquinoline derivatives, **Journal of Pharmacy Research**. 8 (2014) 552-562.
 43. P. Ashok, **S. Chander**, J. Balzarini, C. Pannecouque, S. Murugesan. Design, synthesis of new β -carboline derivatives and their selective anti-HIV-2 activity, **Bio-organic & Medicinal Chemistry Letters**. 25 (2015) 1232-1235.
 44. P. Ashok, C.L. Lu, **S. Chander**, Y.T. Zheng, S. Murugesan. Design, Synthesis, and biological evaluation of 1-(thiophen-2-yl)-9*H*-pyrido[3,4-*b*]indole derivatives as anti-HIV-1 agents, **Chemical Biology & Drug Discovery**. 85 (2015) 722-728.
 45. A. Penta, **S. Chander**, S. Ganguly, S. Murugesan. De novo design and in-silico studies of novel 1-phenyl-2,3,4,9-tetrahydro-*IH*-pyrido[3,4-*b*]indole-3-carboxylic acid derivatives as HIV-1 reverse transcriptase inhibitors, **Medicinal Chemistry Research**. 23 (2014) 3662-3670.
 46. P. Ashok, H. Sharma, H. Lathiya, **S. Chander**, S. Murugesan. In-silico design and study of novel Piperazinyl β -carbolines as inhibitor of HIV-1 reverse transcriptase, **Medicinal Chemistry Research**. 24 (2015) 513-522.

47. P. Ashok, **S. Chander**, H. Lathiya, H. Sharma, K. Goyal, S. Murugesan. De-novo design and *in-silico* studies of novel bis-arylpiperazine derivatives as non-nucleoside inhibitors of HIV-1 reverse transcriptase. **Journal of Pharmaceutical Chemistry**. 1 (2014) 22-27.
48. K.K. Roy, S. kumar, **S. Chander**, A.K. Saxena. Lead Optimization Studies towards the Discovery of Novel Carbamates as Potent AChE Inhibitors for the potential Treatment of Alzheimer's Disease, **Bioorganic & Medicinal Chemistry**. 20 (2012) 6313-6320.

National Journals

1. R. Kannadhasan, D. Saravanam, **S. Chander**, S. Murugegan. Novel 2-oxothiazol-1, 2, 3, 4-tetrahydropyrimidine derivatives synthesized by Biginelli reaction-biological activity and docking studies. **Asian Journal of Science and Technology**, 8 (2017) 6412-6420.
2. **S. Chander**, S. Murugesan. In-silico based drug repositioning approach for the search of potent anti-HIV-1 RT inhibitors, **Cutting Edge**. 6 (2016) 9-14.
3. **S. Chander**, A. Penta, S. Murugesan. 1,2,3,4-Tetrahydroquinoline: A Versatile Nucleus in the New Millennium, **Research & Reviews: A Journal of Drug Design & Discovery**. 3 (2016) 1-18.
4. A. Penta, **S. Chander**, S. Murugesan. In-Silico Design and Study of Novel Tetrahydro- β -Carbolines as Inhibitor of HIV-1 Reverse Transcriptase, Research & Reviews, **Journal of Drug Design & Discovery**. 3 (2016) 19-30.

BOOK CHAPTER

1. Vijeta Kumari, Arijit Nandi, Anwesha Das, and **Subhash Chander**. Book Chapter, 'Bioinformatics for Determining the Active Site of the Target Protein'. Title of Book, 'Computational Biology in Drug Discovery and Repurposing' Edited by Rajani Sharma, A. V. Senthil Kumar, Kunal Kumar, Chapter No. 3, CRC Press, ISBN: 9781774915561
2. Anwesha Das, Arijit Nandi, Vijeta Kumari, and **Subhash Chander**. Book Chapter No. 7, 'Immunoinformatics in Drug Designing'. Title of Book, 'Computational Biology in Drug Discovery and Repurposing' Edited by Rajani Sharma, A. V. Senthil Kumar, Kunal Kumar, Chapter No. 3, CRC Press, ISBN: 9781774915561
3. M. Pilani, **S. Chander**, P.C. Sharma, 'Goitrogenic/Anti-thyroid potential of the dietary Isothiocyanate (2021). Spectrum of Isothiocyanate Chemistry and its Applications. Edited by S.K. Mehta, Chapter No. 11, Page No. 251-270, Nova Science Publishers, Inc, USA, ISBN: 978-1-53616-478-7.
4. S Chander, M Piplani, T Waghule and G Singhvi, 'Role of chitosan in transdermal drug delivery' (2021). Chapter No. 4, Page No. 83-101. Chitosan in Drug Delivery, 1st Edition, Editors: Md Saquib Hasnain Sarwar Beg Amit Kumar Nayak, eBook ISBN: 9780128193372, Paperback ISBN: 9780128193365, Imprint: Academic Press, Elsevier.

5. S Jain, K Nuwal, A Mahmood, M Piplani, **S Chander**, SK Dubey and G Singhvi, 'Thiolated chitosan as an improved bioadhesive polymer in drug delivery' (2021). Chapter No. 10, Page No. 247-270. Chitosan in Drug Delivery, 1st Edition, Editors: Md Saquib Hasnain Sarwar Beg Amit Kumar Nayak, eBook ISBN: 9780128193372, Paperback ISBN: 9780128193365, Imprint: Academic Press, Elsevier.

6. Book chapter, entitled, 'Gallstones: a factor for acute pancreatitis', accepted and in Production in Elsevier Book, entitled, 'Gallstone formation, diagnosis, treatment & prevention' ISBN number: 9780443160981. Contributing authors: Teeshyo Bhattacharya, Arijit Nandi, **Subhash Chander**

CONFERENCES/WORKSHOP ATTENDED (Selected)

1. Poster presented on the topic, entitled "In-silico guided hit optimization studies on 3-hydroxy-indolinone nucleus to search potential anti-HIV-1 agents" in International E- conference on 'Advances in Chemical Research' Organized by Dept. of Chemistry, Institute of Science, GITAM Deemed to be University, Visakhapatnam held on 19th - 20th April 2021.
2. **Subhash Chander**, Deepak P. Bhagwat, Murugesan Sankaranarayanan, Nicolas Vanthuynne, Yong-Tang Zheng, Poster entitled "Search of 3-hydroxy-indolin-2-one derivatives as potential anti-HIV-1 agents via in-silico approach" presented in the 20th Tetrahedron Symposium held at Bangkok, Thailand, 18th-21st June-2019.
3. Attended and contributed as Co-organizing Secretary in the International Conference of Pharmacology and Drug Discovery (ICPDD) organized by Maharaja Agrasen University from 4th to 6th October, 2018.
4. **Subhash Chander**, Pankaj Bhateja and Sankaranarayanan Murugesan, Poster entitled "Structure based virtual screening studies on drug database for search of potent HIV-1 RT inhibitors" presented in the 69th Indian Pharmaceutical Congress held at Chitkara University, 22nd-24th of December 2017.
5. Attended and delivered an oral presentation on the topic entitled "Design, synthesis and anti-HIV-1 RT evaluation of 2-amino-1-(piperazin-1-yl)ethan-1-one based compounds".in the national conference entitled, "Emerging Trends in Computer Aided Drug Design & Drug Delivery" held at Baddi University of Emerging Sciences & Technologies, Baddi on 11 May 2017.
6. **Subhash Chander**, Ashok Penta, Yong-Tang Zheng, Ping Wang, and Sankaranarayanan Murugesan, Poster entitled "Design, synthesis and in-vitro evaluation of novel benzopiperidine carbamates as HIV-1 RT inhibitor" presented in international conference entitled "Current Challenges in Drug Discovery and Delivery" held at BITS Pilani, Pilani-Campus, 2nd-4th of March 2017.
7. **Subhash Chander**, Ping Wang, Ashok Penta, Liu-Meng Yang, Yong-Tang Zheng and Sankaranarayanan Murugesan, Poster entitled "Rational Design, Synthesis and Anti-HIV-1 RT evaluation of 1-(4-Phenylpiperazine-1-yl) ethanone based hybrid compounds" presented in national conference entitled "Organic Chemistry in Sustainable Development: Recent Advances and Future Challenges" held at BITS Pilani, Pilani-Campus, 29th -30th of August 2016.

8. **Subhash Chander**, Ashok Penta and Sankaranarayanan Murugesan, Poster entitled “*In-silico* lead optimization, synthesis and anti-HIV-1 RT evaluation of indolin-2-one derivatives” presented in 6th International Symposium entitled “Current Trends in Drug Discovery Research (CTDDR-2016)” held at CDRI Lucknow on 25th to 28th February 2016.
9. **Subhash Chander**, Ashok Penta and Sankaranarayanan Murugesan, Poster entitled “Design, synthesis, in-vitro evaluation and docking studies of novel 6,7-dimethoxy 1,2,3,4-tetrahydroisoquinoline derivatives as HIV-1 reverse transcriptase inhibitors” presented in national conference “Recent Developments in Medical Biotechnology and Structure Based Drug Designing” held at IIT Guwahati 6th -7th of December 2015.
10. **Subhash Chander**, Ashok Penta and Sankaranarayanan Murugesan, Poster entitled “Design, synthesis and in-vitro evaluation of novel 1-(4-chlorophenyl)-2-(3,4-dihydroquinolin-1(2H)-yl)ethyl phenylcarbamate derivatives as inhibitor of HIV-1 RT ” presented in international conference “Nascent Development in Chemical Sciences” held at BITS Pilani, Pilani-Campus, 16th -18th of October 2015.
11. **Subhash Chander**, Ashok Penta and Sankaranarayanan Murugesan, Poster entitled “In-silico virtual screening and docking studies for the identification of novel inhibitors of HIV-1 Reverse Transcriptase” presented at Indo-US conference on “Molecular Modeling and Informatics in Drug Design” held at NIPER Mohali on 3rd-6th of November 2014.
12. **Subhash Chander**, Ashok Penta and Sankaranarayanan Murugesan, Poster entitled “In-Silico design and study of novel benzopiperidines as HIV-1 Reverse Transcriptase Inhibitor.” presented at International conference on “Recent Advances in Computational Drug design” held at J.N. Tata Auditorium, IISc, Bangalore on 16th and 17th of September 2013.
13. **Subhash Chander**, Kuldeep K. Roy, Anil K. Saxena. Poster entitled “Alzheimer's Disease: Lessons Learned and Grand Challenges Ahead” presented at 3rd CDRI-NIPER (RBL) Symposium, on Medicinal Chemistry and Pharmaceutical Sciences organized by NIPER (RBL)-CDRI Lucknow. March 3-5th, 2011.
14. Symposium attended on Medicinal Chemistry and Pharmaceutical Sciences organized by NIPER (RBL)-CDRI Lucknow. March 25-27th, 2010.

INVITED LECTURE/ORAL PRESENTATION/RESOURCE PERSON

- Delivered an invited lecture entitled “Design, synthesis and anti-HIV-1 RT evaluation of quinoline based carboxylic hydrazide derivatives” at the Sixth Euro-India International Conference on Holistic Medicine (ICHM-2016), 9th-11th Sept. 2016, held at Kottayam, Kerala.
- Invited as as chairperson of poster session in the national conference entitled, “Emerging Trends in Computer Aided Drug Design & Drug Delivery” held at Baddi University of Emerging Sciences & Technologies, Baddi on 11 May 2017. Also delivered an oral presentation in the same conference on the topic entitled “Design, synthesis and anti-HIV-1 RT evaluation of 2-amino-1-(piperazin-1-yl)ethan-1-one based compounds”.

OTHER DUTIES PERFORMED (In previous organization)

1. Chairperson of the Student Grievance Redressal Committee of University
2. Member Secretary of Research Promotion Cell of University
3. Convener of the Departmental Technical Committee.
4. Member of the Departmental Academic Committee.
5. Member of Committee for MOOC and SWAYAM portal

6. Training-Placement Co-ordinator of School of Pharmacy
7. Core team member of the Committee constituted in the University for SSR Preparation and NAAC evaluation.
8. Contributed as Co-organizing Secretary in the International Conference of Pharmacology and Drug Discovery (ICPDD-2018) organized by Maharaja Agrasen University from 4th to 6th October, 2018, in which more than 500 delegates and 50 national and international speakers participated.

NPTEL COURSE COMPLETED

Completed 12 weeks NPTEL course, entitled, '**Drug Delivery: Principles and Engineering**' conducted by faculty from **IISc Bangalore**. Scored of 75 marks, out of 100 and received the Elite + Silver certificate. Course is equivalent to one and a half AICTE approved FDP.

Completed 12 weeks of NPTEL course in Medicinal Chemistry subject with Elite + Silver certificate, and secured position among the top 5% scorer with 87 % marks out of 100. Course is equivalent to the 1.5 AICTE approved FDP programme. Course was coordinated by IIT Madras and subject was taught by the faculty from IISER Pune.

Patents: 6 (Filed)

1. Patent entitled, A NOVEL FRAGRANCE ENTRAPMENT FORMULATION AND PREPARATION METHOD THERE OF. Inventors: **Subhash Chander** and Harsha Kharkwal, Application No. 2022110073899. Date and Year of Filing: December 20, 2022. Filing Institute/Organization: Amity University Uttar Pradesh. (Provisional).
2. Patent entitled, 'AN ANTI-CANCER POTENTIAL OF 2-(1H-IMIDAZOL-5-YL)PHENOL DERIVATIVES AND METHOD THEREOF' : **Subhash Chander**, Pallavi Agarwal, Amarnath Karna, Piyush Kumar (IIT, Jammu), Harsha Kharkwal, Pinki Rawat (MPCP, Kanpur), Application No. 202211052774. Date and Year of Filing: September 15, 2022. Filing Institute/Organization: Amity University Uttar Pradesh. (Provisional).
3. Provisional patent, entitled: 'Synthesis of GS-441524 nucleoside analogs and its intermediates' filed. Inventors: Dr. Sandhya Pittala (from Crenza Pharma), **Dr. Subhash Chander**, Dr. Harsha Kharkwal, Application No. 202041026137. Indian Patent, Year of Filing: 2020. Filing Institute/Organization: Crenza Pharmaceutical Pvt Ltd.
4. Patent, entitled "A novel synthetic route of Favipiravir and its intermediate compounds" Filed. Inventors; Dr. Sandhya Pittala, **Dr. Subhash Chander**, Dr. Harsha Kharkwal, Application no. 202041026139, Indian Patent, Year of Filing: 2020. Filing Institute/Organization: Crenza Pharmaceutical Pvt Ltd.

5. Patent entitled, drug candida method for cancer and methods thereof. Inventors: **Dr. Subhash Chander**, Mr. Ankush Goyal, Dr. Harsha Kharkwal, Dr. Murugesan. Application No. 202111015961. Year of Filing: 2021. Filing Institute/Organization: Amity University Uttar Pradesh.

6. Patent entitled, a novel composition of cleansing formulation and method thereof. Inventors: **Dr. Subhash Chander** and Dr. Harsha Kharkwal. Application No. 202111047130. Year of Filing: 2021. Filing Institute/Organization: Amity University Uttar Pradesh.

Technology Transfer: 1

On-going Research Project: 4 Total, 2 as PI

1. SERB SRG

Project Title: Design, synthesis and evaluation of novel hydrophilic conjugates of Cholecalciferol with enhanced bioavailability

Project Cost: 28,52,894 INR

Funding Agency: SERB, DST

Reference Number: SRG/2022/001010

Investigator: Dr. Subhash Chander (PI)

Start and Completion Date: 28-09-2022 to 27-09-2024

2. Industry Sponsored Project

Project Title: Synthesis, characterization and optimization studies on 5-halogen substituted indolin-2-one based bioactive compounds

Date of Completion: Dec. 2023

Amount: 2,00,000 INR

Sponsoring Company: Ebrilive Healthcare Pvt. Ltd

Investigator: PI: Dr. Subhash Chander, Co-PI: Dr. Harsha Kharkwal

Completed Projects: 2

Products and Technology

1. Currently working on Economic and easy techniques for the real time monitoring of plant's secondary metabolites, already conceptualize, now working on its further improvement and searching of more suitable team members for optimization and further validation.

2. Novel eco-friendly and biodegradable gel prepared for fragrance entrapment and optimized the process. Products have high commercial potential as room freshener, car fresheners and for other fragrance purpose. This is patent based innovation.

3. Eco-friendly plant based straw prepared, after processing it was found to have long self life and resistant to heat and cold.

4. Novel leather cleansing solution prepared with conditioning effect. Formulation is comprising of cost-effective unique composition and contains all safe ingredients.

Formulation is ready for technology transfer and provisional patent of the same has been already filed.

5. Cupper-tannic acid nanoparticles, prepared, and impregnated on cotton cloth, which showed very promising anti-microbial activity against two representative bacterial strains.

6. Non-carbonated antacid developed with GIT protective action; in the preliminary laboratory studies it fulfills the criteria of antacid as per United State Pharmacopoeia.

PhD Scholars

Currently guiding 3 Research Scholars, including one JRF, and also contributing as co-guide of 2 scholars at AIP, AUUP

Advisory Committee Member

Recognized as professional Scientific Advisory Committee member of Phytoelixir Pvt.Ltd. an Innovation based Biotech Startup, (Recognition No.DIPP99296) under the Ministry of Commerce and Industry, GoI).

Declaration:

I hereby declare that the information given above is completely true best to my knowledge. Further, I will be fully responsible for any ambiguity or wrong information.

Subhash Chander