Dr. GERA NARENDRA

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ABOUT ME

- I have completed my M.S. (Pharm) under the supervision of Prof. Elizabeth Sobhia from the Department of Pharmacoinformatics, NIPER, S.A.S. Nagar, Mohali
- I have completed Ph.D. thesis under the supervision of Prof. Om Silakari and Co-supervision of Dr. Bharti Sapra from the Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala
- Also, I am worked as a Senior Research Fellow (SRF), Indian Council of Medical Research, New Delhi in a major adhoc project ISRM/12(10)/2019.
- My research project completely focuses on addressing resistant cancer associated with tumoral drug inactivating enzymes

PERSONAL DETAILS

Father Name: Mr. Sheshagiri Rao
Mother Name: Mrs. Kamala
Date of Birth: 23/06/1995
Vippalamadaka Village, Wyra (mandal), Khammam (Dist.), Telangana, India, 507165

EDUCATION

PH.D. (2019 - 2024)

- I graduated with a Ph. D. in Pharmaceutical Sciences from Punjabi University, Patiala, with a CGPA of 8.25

M. S. (PHARM.) (2017 - 2019)

- M. S. (Pharm) in Pharmacoinformatics from National Institute of Pharmaceutical Education and Research (NIPER), S. A. S. Nagar with 8.44 CGPA

BACHELOR OF PHARMACY (2013 - 2017)

- B. Pharmacy from Teegala Ram Reddy college of Pharmacy, Hyderabad, Telangana with 68.5%

SENIOR SECONDARY SCHOOL (2011 - 2013)

- Senior secondary schooling from Andhra Loyola College, Vijayawada, Andhra Pradesh with 69.8%

SECONDARY SCHOOL (2011)

- Secondary schooling from Z. P. S. S. School, Garikapadu, Telangana with 84%

AREA OF INTEREST

- Computer Aided Drug Designing
- Small molecules Synthesis
- Machine Learning Models development
- Network Pharmacology
- *In-vitro* enzymatic and cell line Evaluations

PROFESSIONAL ACHIEVEMENTS

- Received "**Young Scientist Award**" for paper presentation in 26th Punjab science congress organized by Punjab Academy of Sciences at Sri Guru Granth Sahib World University, Fatehgarh sahib, Punjab, India

KEY STRENGTHS

- Candid
- Self-motivated
- Organizational Skills

LANGUAGES KNOWN

- English
- Telugu
- Hindi

HOBBIES

- Listening music
- Playing badminton

SKILLS

- Molecular Docking
- Molecular Dynamics
- Homology Modeling
- Network Analysis
- Energy calculations
- Fragment based drug designing
- QSAR
- Enzymatic assays

REFERENCE

Prof. Om Silakari
Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala
Mobile No: +91 9501542696
Email: omsilakari@gmail.com

Dr. Bharti Sapra
Associate Professor
Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala
Mobile No: +91 9501019661
Email: bhartijatin2000@yahoo.co.in

PUBLICATION CITATIONS

Citations	100
h-index	7
i10-index	5

- Got First prize in oral presentation on "**Raloxifene and Bazedoxifene as Selective ALDH1A1 Inhibitors to Ameliorate Cyclophosphamide Resistance: A Drug Repurposing Approach**" at International Conference on Innovation & Advances in Drug Development and Clinical Research, organized by Chitkara College of Pharmacy, Chitkara University, Punjab, India

- Got First prize in poster presentation on "**Hypoglycemic and Anti-diabetic activity of methanolic extraction of leaves of *striga gesnerioides* on alloxan induced model in rats**" in national conference on transpiring novelty & Hi-tech knowledge in advanced research in pharmaceutical sciences held at T.K.R. college, Hyderabad, India

- Got First prize in oral presentation on "**Identification of potential genes associated with ALDH1A1 overexpression and cyclophosphamide resistance in chronic myelogenous leukemia using network analysis**" in National conference-cum-workshop themed "post covid pandemic era: Prospective shift towards clinical and translational research organized by Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala, India

RESEARCH EXPERIENCE

- I have done research project entitled "**Computational studies to identify potent small molecules as *Mtb* DNA gyrase-B ATPase inhibitors to explore MDR-TB**" as a part of M.S. (Pharm.) thesis under the guidance of Prof. Elizabeth Sobhia, Department of Pharmacoinformatics, NIPER, S.A.S. Nagar during the year 2018-2019

- Worked as Senior research fellow in an ICMR project entitled with "**Bioinformatics Based Analysis of Tumoral Drug Inactivating Enzymes to Manage the Pharmacokinetic Resistance**" under the guidance of prof. Om Silakari, Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala during the year 2019-2022

PUBLICATIONS

1ST AUTHOR PUBLICATIONS

- Raloxifene and bazedoxifene as selective ALDH1A1 inhibitors to ameliorate cyclophosphamide resistance: A drug repurposing approach. **Gera Narendra**, Baddipadige Raju, Himanshu Verma, Manoj Kumar, Subheet Kumar Jain, Gurleen Kaur Tung, Shubham Thakur, Rasdeep Kaur, Satwinderjeet Kaur, Bharti Sapra, Pankaj Kumar Singh, Om Silakari - International Journal of Biological Macromolecules, 2023.
- Role of genetic polymorphisms in drug-metabolizing enzyme-mediated toxicity and pharmacokinetic resistance to anti-cancer agents: a review on the pharmacogenomics aspect. **G Narendra**, S Choudhary, B Raju, H Verma, O Silakari - Clinical Pharmacokinetics, 2022.
- Identification of potential genes associated with ALDH1A1 overexpression and cyclophosphamide resistance in chronic myelogenous leukemia using network analysis **G Narendra**, B Raju, H Verma, O Silakari - Medical Oncology, 2021.
- Multiple machine learning models combined with virtual screening and molecular docking to identify selective human ALDH1A1 inhibitors. **G Narendra**, B Raju, H Verma, B Sapra, O Silakari - Journal of Molecular Graphics and Modelling, 2021.
- Scaffold Hopping Based Designing of Selective ALDH1A1 Inhibitors to Overcome Cyclophosphamide Resistance: Synthesis and Biological Evaluation. **Gera Narendra**, Baddipadige Raju, Himanshu Verma, Manoj Kumar, Subheet Kumar Jain, Gurleen Kaur Tung, Shubham Thakur, Rasdeep Kaur, Satwinderjeet Kaur, Bharti Sapra, Om Silakari.

CO-AUTHOR PUBLICATIONS

- Evaluation of Cordyceps militaris steroids as anti-inflammatory agents to combat the Covid-19 cytokine storm: a bioinformatics and structure-based drug designing approach. Manmeet Singh, Himanshu Verma, **Narendra Gera**, Raju Baddipadige, Shalki Choudhary, Priyanka Bhandu & Om Silakari - Journal of Biomolecular Structure and Dynamics, 2023.
- Energy decomposition and WaterSwapping analysis to investigate the SNP associated DPD mediated 5-FU resistance. H Verma, J Doshi, **G Narendra**, B Raju, PK Singh, O Silakari - SAR and QSAR in Environmental Research, 2023.
- QM/MM Studies on Enzyme Catalysis and Insight into Designing of New Inhibitors by ONIOM Approach: Recent Update. H Sharma, B Raju, **G Narendra**, M Motiwale, B Sharma, H Verma, and O Silakari - ChemistrySelect, 2023.
- Network Analysis Guided Designing of Multi-Targeted Anti-Fungal Agents: Synthesis and Biological Evaluation. M Singh, H Verma, P Bhandu, M Kumar, **G Narendra**, S Choudhary, P K Singh, O Silakari - Journal of Molecular Structure, 2023.

- In silico guided designing of optimized Benzochalcones derivatives as potent CYP1B1 inhibitors: An integrated in vitro and ONIOM study. H Sharma, B Raju, **G Narendra**, M Kumar, H Verma, B Sharma, G K Tung, S K Jain, Natércia F Brás, O Silakari - Journal of Molecular Graphics and Modelling, 2023.
- Identification of potential benzoxazolinones as CYP1B1 inhibitors via molecular docking, dynamics, waterswap, and in vitro analysis. Baddipadige Raju, Himanshu Verma, **Gera Narendra**, Gurleen Kaur, Subheet Kumar Jain, and Om Silakari – New Journal of Chemistry, 2023.
- Molecular Docking, Dynamics, and WaterSwap Analysis to Identify Anti-aggregating Agents of Insulin and IFN-β. P Sharma, B Raju, **G Narendra**, B Sapra, O Silakari - Applied Biochemistry and Biotechnology, 2022.
- Identification of natural peptides from "PlantPepDB" database as anti-SARS-CoV-2 agents: A protein-protein docking approach. Priyanka Bhandu, Himanshu Verma, Baddipadige Raju, **Gera Narendra**, Shalki Choudhary, Manmeet Singh, Pankaj Kumar Singh, Om Silakari. Phytomedicine Plus, 2023.
- Classification of Potent and Weak Penetration Enhancers Using Multiple Feature Selection Methods and Machine Learning Models. Baddipadige Raju, Neha Verma, Gera Narendra, Om Silakari, Bharti Sapra. Journal of Pharmaceutical Innovation, 2023.
- Dihydropyrimidine Dehydrogenase-Mediated Resistance to 5-Fluorouracil: Mechanistic Investigation and Solution. H Verma, **G Narendra**, B Raju, PK Singh, O Silakari - ACS Pharmacology & Translational Science, 2022.
- Multiple machine learning, molecular docking, and ADMET screening approaches for identification of selective inhibitors of CYP1B1. B Raju, H Verma, **G Narendra**, B Sapra, O Silakari - Journal of Biomolecular Structure and Dynamics, 2022.
- Rational designing of quinazolin-4 (3H)-one based ALR2 inhibitors: Synthesis and biological evaluation. P Bhandu, H Verma, M Singh, M Kumar, **G Narendra**, S Choudhary, P K Singh, O Silakari - Journal of Molecular Structure, 2022.
- Machine learning enabled structure-based drug repurposing approach to identify potential CYP1B1 inhibitors. B Raju, **G Narendra**, H Verma, M Kumar, B Sapra, G Kaur, S K Jain, O Silakari - ACS omega, 2022.
- 3D-QSAR and scaffold hopping-based designing of benzo [d] ox-azol-2 (3H)-one and 2-oxazolo [4, 5-b] pyridin-2 (3H)-one derivatives as selective aldehyde dehydrogenase 1A1 inhibitors: synthesis and biological evaluation. H Verma, **G Narendra**, B Raju, M Kumar, S K Jain, G K Tung, P K Singh, O Silakari - Archiv der Pharmazie, 2022.
- Molecular modeling approaches to address drug-metabolizing enzymes (DMEs) mediated chemoresistance: a review. B Raju, S Choudhary, **G Narendra**, H Verma, O Silakari - Drug Metabolism Reviews, 2021.
- Computational and biological investigations on Abl1 tyrosine kinase: a review. Masilamani E Sobhia, G Siva, A Mallick, H Singh, K Kumar, M Chaurasiya, **G Narendra**, S Deverakonda, V Baghel- Current Drug Targets, 2020.

- Scaffold Hopping for Designing of Potent and Selective CYP1B1 Inhibitors to Overcome Docetaxel Resistance: Synthesis and Evaluation. Baddipadige Raju, **Gera Narendra**, Himanshu Verma, Manoj Kumar, Bharti Sapra, Gurleen Kaur, Subheet Kumar Jain, Padakanti Sandeep Chary, Neelesh Kumar Mehra, Om Silakari.
- Identification of Chemoresistance Associated Key Genes-miRNAs-TFs in Docetaxel Resistant Breast Cancer by Bioinformatics Analysis". Raju Baddipadige, **Narendra Gera**, Himanshu Verma, Om Silakari.