



Dr. Pratichi Singh

Education

- **Ph.D. Bioinformatics Submitted-2017, Awarded-2018**
Vellore Institute of Technology, Vellore (VIT Vellore), Tamil Nadu, India
- **M.Sc. Biomedical Genetics 2011-2013**, Vellore Institute of Technology, Vellore (VIT Vellore), Tamil Nadu, India
- **B.Sc. Biotechnology 2008-2011**, Devi Ahilya Vishwavidyalaya, Indore (DAVV Indore), Madhya Pradesh, India

Professional Experience

- **Exp:** 8 Yrs (Teaching), 13 yrs (Research)
- **Assistant Professor**, Department of Life Sciences, **Galgotias University, Greater Noida, India (2019- till present)**
- **Biology Faculty** in Higher Secondary, CBSE Board (2017-2019)
- Supervisor, **Exam Coordinator, Lab-In-Charge**
- **Teaching cum Research Associate**, VIT Vellore, India
- Full-time **Research Scholar** (PhD) in VIT, Vellore
- **Research Intern**, SGPGIMS, Lucknow

Research Interests

- Molecular modelling, Genomics, Proteomics, Systems biology
- Structural Bioinformatics, Molecular dynamics
- Networking of proteins/genes, Codon variation study
- Structural and sequence mutations in genes/proteins, Evolutionary analysis

Awards and Fellowships

- Received **Research & Innovation Award** in 2020
- Received **Young Scientist Award** in 2020
- Received **Research Award** in 2017 and 2018
- Received **Research Associateship** in 2014

Basic Information

Date of Birth: **29.10.1990**

Gender: **Female**

Nationality: **Indian**

Marital Status: **Married**

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OrcidID:<https://orcid.org/0000-0002-8163-355X>

Research Overview

No. of Publications: 35

Patents: 7

Books Editor: 3

Citations: 260 h-index: 9

Technical Skills

- Expert in structure-based drug design, MD simulations, Various Bioinformatics Tools and Packages
- Proficiency in MS Office applications, Linux (Ubuntu) Operating system
- Schrodinger Maestro software, Gromacs software, Auto dock Tools

Supervising, Mentoring Activities

- Ph.D. Supervisor
- Demonstrated and assisted Bioinformatics /Biotechnology lab experiments
- Guided more than 50 projects for B.Tech, B.Sc., and MSc. Students.

Patents

1. **Title of the Invention:** Covid19 Protected Room: Disinfecting Room Air Using Machine Learning System

Application No: 202031024066

Application Filing Date: 09/06/2020

Publication Date: 17/07/2020

2. **Title of the Invention:** Stomach Pain Detector Kit: With Medicine Dose Using Deep Learning Programming

Application No: 202111008830

Application Filing Date: 03/03/2021

Publication Date: 29/03/2021

3. **Title of the Invention:** Multivitamin Tablet Using Food Waste Material

Application No: 202211018221

Application Filing Date: 29/03/2022

Publication Date: 26/01/2024

4. **Title of the Invention:** Method for Synthetically Producing Chitin

Application No: 202211025588

Application Filing Date: 02/05/2022

Publication Date: 22/12/2023

5. **Title of the Invention:** Method for Synthetically Producing Honey

Application No: 202211025587

Application Filing Date: 02/05/2022

Publication Date: 22/12/2023

6. **Title of the Invention:** Method for printing 3D Model using ABS Polymer

Application No: 202211047836

Application Filing Date: 23/08/2022

Publication Date: 01/03/2024

7. **Title of the Invention:** Synthesis of Novel piperazine derivatives as anticancer agents

Application No: 202311086738

Application Filing Date: 19/12/2023

Publication Date: 19/01/2024

Academic Engagement

- Innovation Ambassador (IA) Training 'Foundational Level' and 'Advanced Level', and 'Reskilling' by MoE's Innovation Cell & AICTE
- Submitted Project in DBT, BIRAC, and UPCST.
- Attended more than 50 FDPs and Conferences/symposia.
- External Expert and Evaluator at various Institutions/Conferences
- **Keynote speaker** in FDP and Workshops.
- **Trained students** on Autodock and Drug discovery
- **Outcome-Based Education & Accreditation** Training Certificate from NITTTR Bhopal
- **Accreditation and Outcome-Based Learning (OBE)** Course from NPTEL, IIT Kharagpur along with FDP
- Completed online courses from **Coursera** from various foreign Universities.

- Permanent **Membership** in the **Asia Society of Researchers (ASR)** and **Hong Kong Chemical, Biological & Environmental Engineering Society (HKCBEEES)**
- **Editorial Board Member** of **Scientific Reports, Computational Biology and Bioinformatics, Current Research in Public Health, Life Research**
- **Reviewer** of various reputed international journals
- Research intern at “**Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS)**, Lucknow, in the Department of Medical Genetics from December 2012 to May 2013.
- Presented Paper/Poster/Abstract at Various International Conferences in Postgraduation & Ph.D.
- Internship from “Endo Labs Limited, Indore” in production and marketing management of tablets at the Graduation level.
- Project on “Hospital Management” at the Graduation level

Books Edited (Peer Reviewed)

1. Pratchi Singh, '**Herb-Drug Interactions: A Medicinal Approach**' (Bentham Science Publisher), 2025
2. Souvenir and Abstract Book of **ANRF-DST Sponsored International Conference on Recent Trends in Biosciences and Technology**, 25 Aug-26 Aug 2025. Ronak Publication House. ISBN 9789348849410.
3. Pratchi Singh, Shikha Yadav '**Pharmacology of Endocrine Disruptors: Mechanisms, Health Impacts, and Therapeutic Strategies**' (Bentham Science Publisher), 2025

Scientific Publications

1. Yadav S, **Singh P**, Khan J, Singh S. A Current Perspective on the Effects of Flavonoids in the Treatment of Acne. Infectious disorders drug

targets. Sep. 2024 doi:

10.2174/0118715265299763240818161040.

2. Yadav R; Swetanshu; **Singh, P***. The molecular mechanism of obesity: The science behind natural exercise yoga and healthy diets in the treatment of obesity, *Current Problems in Cardiology*, Volume 49, Issue 2, 2024, 102345, ISSN 0146-2806, <https://doi.org/10.1016/j.cpcardiol.2023.102345> **(I.F. 4.2)**
3. Mishra, A.P.; Swetanshu; **Singh, P***; Yadav, S.; Nigam, M.; Seidel, V.; Rodrigues, C.F. Role of the Dietary Phytochemical Curcumin in Targeting Cancer Cell Signalling Pathways. *Plants* 2023, 12, 1782 . <https://doi.org/10.3390/plants12091782> **(I.F. 4.8)**
4. Harshita Sharma, Swetanshu, **Pratchi Singh***, Role of Yoga in Cardiovascular Diseases, *Current Problems in Cardiology*, 49 (1), Part A, 2024, 102032, ISSN 0146-2806. <https://doi.org/10.1016/j.cpcardiol.2023.102032>. **(I.F. 4.2)**
5. Erfani, H., Swetanshu, **Singh, P.** et al. Evaluation of the performance of the compost plant for optimal operational evaluation. *Environ Monit Assess* 195, 1271 (2023). <https://doi.org/10.1007/s10661-023-11810-9> **(I.F. 3.1)**
6. Shrivastav, A., Swetanshu, & **Singh, P***. (2023). The Impact of Environmental Toxins on Cardiovascular Diseases. *Current problems in cardiology*, Volume 49, Issue 1, Part C, 2024, 102120, ISSN 0146-2806, <https://doi.org/10.1016/j.cpcardiol.2023.102120>. **(I.F. 4.2)**
7. **Singh, P***, Ahmed, S., Ahmad, I. & Alam, M. (2023). SNP based analysis depicts phenotypic variability in heme oxygenase-1 protein. *Turkish Journal of Biochemistry*. <https://doi.org/10.1515/tjb-2021-0250> **(I.F. 0.6)**
8. Yadav, S., **Singh, P.** Advancement and application of novel cell-penetrating peptide in cancer management. *3 Biotech* 13, 234 (2023).

<https://doi.org/10.1007/s13205-023-03649-1>
(I.F. 2.89)

9. Swetanshu, Imran Khan, **Pratichi Singh***, E. Srinivasan, A Systematic Overview on Treatment towards Endocrine Disruptors, Sustainable Energy Technologies and Assessments, Volume 53, Part C, October 2022, 102688, <https://doi.org/10.1016/j.seta.2022.102688> (I.F. 8)
10. **Singh, P.**, Swetanshu, Yadav, R. et al. Revisiting the modern approach to manage agricultural solid waste: an innovative solution. *Environ Dev Sustain* (2023). <https://doi.org/10.1007/s10668-023-03309-7> (I.F. 4.7)
11. Erfani, H., Madhu, N. R., Khodayari, S., Qureshi, M. A., Swetanshu, **Singh, P.**, & Jadoun, S. (2024). Separation and removal of oil from water/wastewater in the oil industry: a review. *Environmental Technology Reviews*, 13(1), 325–343. <https://doi.org/10.1080/21622515.2024.2343129>
12. Pallavi Khandelia, Shikha Yadav, **Pratichi Singh***, An Overview of the BCG Vaccine and its Future Scope, *Indian Journal of Tuberculosis*, 2023, <https://doi.org/10.1016/j.ijtb.2023.05.012>
13. Mohit Shakya, Shivani Raizada, Rajesh Yadav, **Pratichi Singh***, Computational Fine-Tuning of Functional Single Nucleotide Polymorphisms Associated with ACP5 Gene to Characterize Missense Mutations, *Advances in Pharmacology and Pharmacy*, Vol. 9, No. 2, pp. 17 - 25, 2021. DOI: 10.13189/app.2021.090201
14. **Pratichi Singh***, Network and Pathway enrichment analysis of ADHD candidate genes, *Indian J Psychiatry* 2020;62:400-6. [10.4103/psychiatry.IndianJPsychiatry_105_17](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_105_17) (I.F. 2.98)
15. **Pratichi Singh**, Diagnosis of Hepatitis Disease Using a Decision Tree Classification Algorithm, *Journal of SeyBold Report*, 2020.
16. **Pratichi Singh**, J. Febin Prabhu Dass: Codon usage of human Hepatitis C virus (HCV) clearance genes in relation to its expression. *Journal of Cellular Biochemistry* (2019) 1-11. DOI: 10.1002/jcb.29290 (I.F. 4.48)
17. **Pratichi Singh**, J. Febin Prabhu Dass: Nearly neutral evolution in IFNL3 gene retains the immune function to detect and clear the viral infection in HCV. *Progress in Biophysics and Molecular Biology* (Dec 2018) 140:107-116. DOI: 10.1016/j.jpbiomolbio.2018.05.004 (I.F. 4.8)
18. Pragati Saini, Garima Bartariya, **Pratichi Singh***, Isolation, Cloning, and Characterization of β -Galactosidase from Different Soil Samples and their Bioinformatics Analysis; *Technische Sicherheit*, 2025; ISSN NO: 1434-9728/2191-0073
19. **Pratichi Singh**, J. Febin Prabhu Dass: A Biomolecular Network Driven Proteinic Interaction in HCV Clearance. *Cell Biochemistry and Biophysics* (2018). DOI:10.1007/s12013-017-0837-y (I.F. 2.98)
20. **Pratichi Singh**, J. Febin Prabhu Dass: A multifaceted computational report on the variants effect on KIR2DL3 and IFNL3 candidate gene in HCV clearance. *Molecular Biology Reports* (2016) 43:1101–1117; DOI:10.1007/s11033-016-4044-5 (I.F. 2.7)
21. Imran Khan, Irfan A. Ansari, **Pratichi Singh**, Febin Prabhu Dass J, Fahad Khan: Identification and characterization of functional single nucleotide polymorphisms (SNPs) in Axin 1 gene: a molecular dynamics approach. *Cell Biochemistry and Biophysics* (2018).

<https://doi.org/10.1007/s12013-017-0818-1>
(I.F. 2.98)

22. Imran Khan, Irfan A. Ansari, **Pratichi Singh**, Febin Prabhu Dass J: Prediction of functionally significant single nucleotide polymorphisms [SNPs] in PTEN tumor suppressor gene: An in silico approach. *Biotechnology and Applied Biochemistry* 01/2016; DOI:10.1002/bab.1483 (I.F. 3.2)
23. Imran Khan, Mohd. Farhan, **Pratichi Singh**, K. Mahalingam: A Study on DNA binding affinity of chemicals present in cosmetic products using Bioinformatics tools. *IJPRBS*, 2013; Volume 2(6): 407-421.
24. Imran Khan, Mohd. Farhan, **Pratichi Singh**, Padma Thiagarajan: Nanotechnology for Environmental Remediation. *RJPBCS*, 2014; Volume 5(3): 1916-1927
25. **Pratichi Singh**, Rashi Nagotra, Arthi Venkatesan, J. Febin Prabhu Dass: A computational report on the variants of ZSCAN4 gene in treating down syndrome. DOI:10.12692/ijb/10.4.41-48
26. **Pratichi Singh**, J. Febin Prabhu Dass. Logical modeling and steady state analysis of serotonin signaling pathway. *Int. J. Biosci.* 10(4), 27-40, April 2017

Book Chapter Contributions

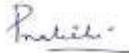
1. Sakshi, **Singh, P.**, Mishra, A.P., Mishra, P., Nigam, M., Singh, S. (2025). Recent Trends in the Valorization of Value-Added Biomass from Microbes for Sustainable Development. *Microbial Niche Nexus Sustaining Environmental Biological Wastewater and Water-Energy-Environment Nexus*. Springer, Cham. https://doi.org/10.1007/978-3-031-62660-9_15
2. Rana, H., **Singh, P.**, Agrahari, A.K. and Yadav, S. (2025). Environmental Aspect of Soft Material. In *Soft Materials-Based Biosensing Medical*

Applications (eds D. Gupta, M. Singh, R. Malviya <https://doi.org/10.1002/9781394214143.ch16>

3. Kumar R, Pandey R, Tiwari S, **Singh P.** Microbial surfactants: overview. *Microbial Surfactants: A sustainable class of versatile molecules*. 2024 Jun 1 (pp. 1-1-19). Bristol, UK: IOP Publishing. ISBN: 978-0-7503-5989-4, 2024
4. Agrahari AK, **Singh P**, Gulati P. Kinetics of microbial growth and biosurfactant production. In *Microbial Surfactants: A sustainable class of versatile molecules* 2024 Jun 1 (pp. 4-1-20). Bristol, UK: IOP Publishing. ISBN: 978-0-7503-5989-4
5. Paul D, Agrahari AK, **Singh P**, Narendrakumar L. Microbial surfactants in water remediation. In *Microbial Surfactants: A sustainable class of versatile molecules* 2024 Jun 1.(pp. 8-1-21) IOP Publishing. ISBN: 978-0-7503-5989-4
6. Saini, S., Rai, A.N.A., Bhat, S.M., Arora, B., **Singh, P.**, Choudhary, and Yadav, R., Probiotic Association with Microbiota: Role of Probiotics in the alteration of microbiota and prevention of Cancer Cardiovascular disease and Cognition. 2024, p.196. SAAR Publications. ISBN - 978-81-973556-9-1
7. Pandey, R. and **Singh, P.**, Neuroinflammatory Role of Diet in the Brain. *Optimizing brain health and performance through essential nutrients and lifestyle changes*, 2024, p.139. SAAR Publications. ISBN - 978-81-973556-9-1
8. **Singh P**, Swetanshu , Yadav S, Nde AL, Kumar VJ. *Drugs for the Control of Parasitic Diseases: Current Status and Case Studies*. *Parasitic Infections: Immune Responses and Therapeutics*. Wiley, 2023 Jul 20:205-26. ISBN: 978-1-119-87804-9
9. Swetanshu, **Singh, P***. (2022). Gut Microbiome and Neurodegeneration: A Bioinformatics Approach. In: Tripathi, A.K., Kotak, M. (eds) *Gut Microbiome in Neurological Health and Disorders*. *Nutritional Neurosciences*. Springer, Singapore. https://doi.org/10.1007/978-981-19-4530-4_17

Declaration

I hereby declare that the above information is true to the best of my knowledge.



(Pratichi Singh)
Place: Greater Noida