

# Curriculum Vitae

## Shivam Mishra

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### PROFESSIONAL SUMMARY

- Assistant Professor (contract basis), Department of Zoology [Bioinformatics & Zoology (UG & PG)], S. S. Khanna Girls' Degree College, University of Allahabad, Allahabad.
  - Project (PI) on In-silico Investigation of phytochemicals from Indian Medicinal Plant against Breast Cancer", funded by IQAC, S. S. Khanna Girls' Degree College, amount; 65000 inr, for 2 years from 2023 to 2025.
  - Ability to conduct research independently and collaboratively within a team.
  - Proficient in organizing seminars, workshops, and other scientific events
  - Ability to quickly learn and adapt to critical concepts and tools.
  - Excellent communication and presentation skills
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### EDUCATION

#### Ph. D. in Bioinformatics, (2025)

Singhania University, Jhunjhunu Rajasthan, India & Indian Institute of Information Technology Allahabad, Allahabad, India

**Thesis Title:** In silico screening of phytochemicals from Indian medicinal plant (*Punica granatum* & *Saraca asoca*) for potential pharmacological activities and their experimental validation

**M.Sc. Zoology** (Capital University, India) 2019-2021

**B.Ed. Biological Sciences** (PRSUP, India) 2017-2019

**M.Sc. Bioinformatics** (University of Allahabad, India) 2014-2016

**B.Sc. Biology** (University of Allahabad, India) 2011-2014

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## SKILLS

### *In-vitro*

- Phytochemical extraction
- Antibacterial Assay
- Nanoparticle green synthesis
- Antioxidant assay
- Animal handling (Albino Mice)

### *In-silico*

- Skilled in utilizing bioinformatics and drug discovery servers
  - Molecular Docking
  - DFT
  - QSAR
  - Pharmacophore modelling
  - ADME/Toxicity & PK data analysis
  - Molecular Dynamics Simulations
  - Virtual screening of compounds
  - Protein sequence analysis
  - Homology modelling
  - Python & R (Beginner)
  - Windows & Linux
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## SOFTWARES

- Schrodinger suite, Autodock, VINA, Avogadro, ACD labs, Chems sketch, MOPAC, ORCA, GROMACS, Discovery Studio, UCSF CHIMERA, PyMol, AlphaFold 2 and many more.
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## PUBLICATIONS

### *Articles*

- Ekhlakh Veg; Azam Raza; Smita Rai; Pratibha Bansal; Swati Sharma; Nidhi Mishra; Riya Gupta; **Shivam Mishra**; Seema Joshi; Abdul Rahman Khan; Tahmeena Khan, "*Facile synthesis of ZnO and  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanoparticles mediated by Livistona chinensis leaf extract and their comparative evaluation of*

*Biological, Environmental and Computational Studies*", Environmental Sustainability (Springer), Oct. 2025 (**RCS Sustainability**).

- **Mishra Shivam\***, Kumar Prabhat, Mishra Nidhi. (2025, June). Computational screening of *Saraca asoca* phytochemicals against thymidine kinase and type II protease of herpes virus. International Journal of Emerging Technologies and Innovative Research, 12(6), i798–i807. <https://www.jetir.org>, (**Peer Reviewed**)
- **Mishra S\***, Modanwal S, Kumar P, Mishra A, Mishra N. (2025, January) “Computational Evaluation of *Punica granatum* Leaf Phytochemicals against Multi-Drug-Resistant E. coli: Molecular Docking, ADMET, MD Simulation, and DFT Studies”. Current Computer Aided Drug Design. (CCADD) Published online January 9, 2025. doi:10.2174/0115734099343126241105102839 (**Peer Reviewed**)
- **Shivam Mishra\*** (2024), “Exploring the Efficacy of Probiotics: A Comprehensive Review of Current Evidence and Future Directions”, Eurasian Journal of Medical Advances, DOI: 10.14744/ejma.2023.06078., (**Peer Reviewed**).
- **Mishra, S\***, Malviya S., (2023) “In Silico Investigation of Phytochemicals Against Typhoid: A Review”. Indian Journal of Pharmaceutical and Biological Research, Vol. 11, no. 01, Apr. 2023, doi:10.30750/ijpbr.11.1.04. (**Peer Reviewed**).
- Shruti Mishra, Prashant Ankur Jain, Shamoon Ahmad, **Shivam Mishra**. (2020), Bioinformatics approach for COVID 19 (Corona virus) disease prevention treatment and drug validation, Eurasian Journal of Medicine and Oncology, Pages: 234-238, 2020. DOI: 10.14744/ejmo.2020.97358 (**Peer Reviewed**)

#### **Book Chapter**

- Shivam Mishra\*, Chapter 19- Profiling Natural Compounds Through Omics Technologies, Book: ADVANCING SCIENCES AND INNOVATION IN HEALTHCARE RESEARCH: HEALTH HORIZON, Elsevier (August 2025) ISBN: 978-0-443-33351-4.
  - Shivam Mishra, Electromagnetic Radiation: The Powerful Tool in Medical Diagnosis and Treatment, Electromagnetic Radiation: Importance and Application, LAMBERT Academic Publishing, ISBN: 978-620-7-45539-3, 2023.
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## COMMUNICATED

### Articles

- Pratibha Mishra, **Shivam Mishra**, Saurabh Shrivastav, Saima Sohrab, Sanjay Kumar Mishra\*, Unveiling the CDK4 inhibitory potential of *Hyptis suaveolens* and *Hyptis capitata*: A combined HR LC-MS/MS, Cytotoxicity and In-Silico approach, Journal of Applied Research on Medicinal and Aromatic Plants; (**Peer Reviewed**).
- Pratibha Mishra, Mariam, **Shivam Mishra**, Sanjay Kumar Mishra\*, In-vitro antidermatophytes activity and molecular docking analysis of *Hyptis capitata* against lanosterol 14a-demethylase (5TZ1), Phytomedicine, (**Peer Reviewed**).
- Shagun Varshney, Rampravesh Pandey, **Shivam Mishra**, Akhilesh Kumar Maurya, Nidhi Mishra; Biogenic Synthesis of Silver Nanoparticles Using *Azadirachta Indica* and *Thevetia Peruviana* Leaf Extracts: Characterization, Antibacterial Analysis, and In-Silico-based Molecular Docking Studies for Potential Biomedical Applications; Nano-Structures & Nano-Objects. 2025 (**Peer Reviewed**)
- **Shivam Mishra**, Shristi Modanwal, Prabhat Kumar, Shraddha Singh, Rubina Lawrence, Nidhi Mishra, In Vitro and Computational Insights into the Antibacterial Properties of *Punica granatum* Leaf Extract Against *Clostridium perfringens*, DARU journal of pharmaceutical sciences springer, July/2025, (**Peer Reviewed**).
- Nand Lal Verma, Mohit Kumar, Shilendra Kumar, **Shivam Mishra**, Ram Sunil Kumar Lalji; Hari kant, Gautam Jaiswar, Nisha Rathor\*, *Synthesis, spectroscopic investigation, Density functional theory, electronic state, docking and simulation studies of novel ethyl 1-((2-chlorothiazol-5-yl)methyl)-1H-1,2,3-triazole-4-carboxylate: An antibacterial agent*, Journal of Molecular Structure (**Peer Reviewed**)
- Ranjana, **Shivam Mishra**, Rahul Kanaoujiya\*, “*In silico molecular modeling and molecular docking study of N, N- Bis(glycyl) amines as anticancer drugs*”, Discovery Molecules (**Peer Reviewed**).
- Ranjana, **Shivam Mishra**, “*Computational Insights into Pyridinone Derivatives as HIV-1 NNRT Inhibitors: A QSAR, DFT, Molecular Docking, ADMET, and MD Simulation Studies*” Doklady Biological Sciences (Peer Reviewed).

### Book Chapter

- **Shivam Mishra\***, Prabhat Kumar, Chapter 9- Drugs Toxicity using Computational Tools, Book: ARTIFICIAL INTELLIGENCE AND IN SILICO STUDIES OF SMALL MOLECULES: DRUG DESIGN TO TOXICOLOGICAL INVESTIGATION, Bentham Sciences.

- Shailendra Kumar Singh, Krishnan Sriram, Ankit Dwivedi, Md. Akhlaqur Rahman, **Shivam Mishra**, Rudra Prakash Ojha\*, *ADVANCES IN ALGAL BIOTHERAPEUTICS THROUGH PROTEIN ENGINEERING: INNOVATION, APPLICATION, AND FUTURE DIRECTION*, CRC Press, Taylor & Francis.
  - Shagun Varshney, Shristi Modanwal, **Shivam Mishra**, Hitesh Yadav\*, *AI in Healthcare Transformations: Mathematical Foundations, Real-World Applications, and Emerging Challenges*; Bentham Sciences
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## PRESENTATION IN NATIONAL AND INTERNATIONAL SEMINAR/ CONFERENCES

### *Poster Presented*

- **Shivam Mishra**, Prabhat Kumar, Nidhi Mishra, “*Comprehensive Analysis of Punica granatum Leaf Extracts: Phytochemical Profiling and Computational Assessment Against Clostridium perfringens*” *Advancements in Diagnostics Technologies: Global Healthcare Monitoring* Organized by Department of Biotechnology, MNNIT Allahabad. 15<sup>th</sup> – 17<sup>th</sup> Nov 2024, ISBN:978-93-89947-40-3.
- **Shivam Mishra**, Prabhat Kumar, Nidhi Mishra, “*A Computational Studies of Phytochemicals from Punica granatum leaves against E. coli*” 2<sup>nd</sup> National Conference on Natural Product/AYUSH System of Medicine, Organized by EPL, Department of Pharmacology, PGIMER Chandigarh, RCFC (NR-1) of National Medicinal Plant Board Ministry of AYUSH, GoI. On 19<sup>th</sup> -21<sup>st</sup> April, 2024.

### *Oral presented*

- **Shivam Mishra**, Prabhat Kumar, “*In silico evaluation of phytochemicals from Sarasa asoka against Herpes Virus*”.in international conference on “Indiscriminate Anthropogenic Impact: A trans-Disciplinary Approach to Environmental and Social Sustainability” Organized by Environment and Society (6<sup>th</sup> ICES),.
- **Shivam Mishra**, Mubusira Fatima, Shaima Afaf, “*Exploring the Antiviral Potential of Calotropis gigantea against Monkeypox: An Insilco approach rooted in traditional Medicine*”, ICSSR Sponsored, International Seminar on IKS & Global Education organized by S. S. Khanna Girls’ Degree College, Prayagraj on 23<sup>rd</sup> and 24<sup>th</sup> Nov/2024.
- **Shivam Mishra**, “*Kumbh Mela: Tradition and the rise of spiritual tourism*” in Two days National seminar on Kumbh Parv Parampara: Teerthraj Prayag ki Amulya Virasat under the ICSSR Sanctioned Research Program 12-13, December, 2024

- **Shivam Mishra**, “In Silico Investigation of Phytochemicals from Indian Medicinal Plant Against Typhoid” in national seminar on “Science in Times to Come” Organized by S.S. Khanna Girls’ Degree College, Prayagraj, under, SCS, DBT, Govt. of India. March 17-18 2023.
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#### **WORKSHOPS & FDP**

- **Workshop** on From Ideas to Assets: IPR Strategies for Success” held at IIIT Allahabad on 24<sup>th</sup> February 2024.
  - **FDP** Organized by AICTE Training and Learning (ATAL) Academy, from 2022-10-10 to 2022-10-21 at Indian Institute of Information Technology, Allahabad.
  - **FDP** on “Evolution from Offline to Online Teaching” (Duration of 5 days Organized by Satish Pradhan Dnyanasadhana College, Thane, Maharashtra.
  - **Workshop** on “Beyond the classroom: Cultivating Health and Mental Wellness for all” organized by Non-Communicable Diseases (NCD) cell, CMO Office, Prayagraj, in Association with S. S. Khanna Girls’ Degree College, Prayagraj on 17 Sept/2024.
  - **Workshops on** “Genomics for Crop Improvement” (Duration of 7 days at MNNIT Allahabad).
  - **Online workshop on** “Next Generation Sequencing Certification” conducted by Biotechnika (Duration of 14 days).
  - **Online Workshop on** “Molecular Biology Techniques” conducted by Biotechnika (Duration of 20 days).
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#### **PATENT PUBLISHED IN IP INDIA IPR**

- A patent on “MACHINE LEARNING-BASED ADVANCED IMAGE PROCESSING SYSTEM FOR EARLY DETECTION AND CLASSIFICATION OF BREAST CANCER” published in the Indian Patent office under IPR Act with reference number “202541036338”.
  - A patent on “DEVELOPMENT OF AN AI-BASED CLINICAL DECISION SUPPORT SYSTEM FOR AYURVEDIC DRUG DOSAGE RECOMMENDATIONS” published in the Indian Patent office under IPR Act with reference number “202521018486A”.
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## **PROFESSIONAL MEMBERSHIP**

- Indian Science Congress Association (**ISCA**) (ID: L37799).
  - American Society for Microbiology (**ASM**) (ID: 200332654I)
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