

# Sanjay Kumar Mohanty

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🌐 Sanjay K. Mohanty

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## Education

- 2020 – . . . . . **Ph.D. Computational Biology, Indraprastha Institute of Information Technology-Delhi**, New Delhi, India.  
Thesis title: *Integrative Computational Frameworks for GPCR Biology: From Receptor Logic to Functional Modulation.*  
CGPA: 9.35
- 2018 – 2020 **M.Sc. Bioinformatics, Central University of South Bihar**, Gaya, Bihar, India.  
Thesis title: *The Cellular Basis of The Loss of Smell In 2019-nCoV Infected Individuals.*  
CGPA: 9.54
- 2015 – 2018 **B.Sc. Botany(Honors), Utkal University** Bhubaneswar, Odisha, India.  
Percentage: 72.17%

## Teaching Experience

- 2021 – 2022 **Introduction to Quantitative Biology**,  
Indraprastha Institute of Information Technology, New Delhi, India.  
Academic Session: Winter semester
- Machine Learning for Biomedical Applications**,  
Indraprastha Institute of Information Technology, New Delhi, India.  
Academic Session: Monsoon semester
- 2020 – 2021 **Communication Skills (English)**,  
Indraprastha Institute of Information Technology, New Delhi, India.  
Academic Session: Winter semester
- Computational Gastronomy**,  
Indraprastha Institute of Information Technology, New Delhi, India.  
Academic Session: Monsoon semester

## Research Publications

### Journal Articles

- 1 V. Gautam, S. Duari, S. Solanki, *et al.*, "Sccamage: A context-aware prediction engine for cellular age, aging-associated bioactivities, and morphometrics," *Cell Reports*, vol. 44, no. 2, 2025.
- 2 **S. K. Mohanty**, A. Mittal, A. Gaur, *et al.*, "Deep learning reveals endogenous sterols as allosteric modulators of the gpcr-gα interface," *eLife*, vol. 14, 2025.
- 3 S. Arora, A. Mittal, S. Duari, *et al.*, "Discovering geroprotectors through the explainable artificial intelligence-based platform agextend," *Nature Aging*, vol. 5, pp. 144–161, 2024.
- 4 S. Arora, S. Satija, A. Mittal, *et al.*, "Unlocking the mysteries of dna adducts with artificial intelligence," *ChemBioChem*, vol. 25, no. 1, e202300577, 2024.

- 5 **S. K. Mohanty**, S. Maryam, V. Gautam, *et al.*, "Transcriptional advantage influence odorant receptor gene choice," *Briefings in Functional Genomics*, vol. 22, no. 3, pp. 281–290, 2023.
- 6 **S. K. Mohanty**, A. Mittal, A. Gaur, *et al.*, "Gcoupler: An ai-enhanced tool unveiled endogenous intracellular allosteric modulators of evolutionary conserved gpcr-gα interface," *bioRxiv*, pp. 2023–02, 2023.
- 7 V. Gautam, R. Gupta, D. Gupta, *et al.*, "Deepgraphh: Ai-driven web service for graph-based quantitative structure–activity relationship analysis," *Briefings in Bioinformatics*, vol. 23, no. 5, bbac288, 2022.
- 8 A. Mittal, **S. K. Mohanty**, V. Gautam, *et al.*, "Artificial intelligence uncovers carcinogenic human metabolites," *Nature Chemical Biology*, vol. 18, no. 11, pp. 1204–1213, 2022.
- 9 V. Gautam, A. Mittal, S. Kalra, *et al.*, "Ectracker: Tracking and elucidating ectopic expression leveraging large-scale scrna-seq studies," *Briefings in Bioinformatics*, vol. 22, no. 6, bbab237, 2021.
- 10 A. Gupta, M. Choudhary, **S. K. Mohanty**, *et al.*, "Machine-olf-action: A unified framework for developing and interpreting machine-learning models for chemosensory research," *Bioinformatics*, vol. 37, no. 12, pp. 1769–1771, 2021.
- 11 K. Gupta, **S. K. Mohanty**, A. Mittal, *et al.*, "The cellular basis of loss of smell in 2019-ncov-infected individuals," *Briefings in bioinformatics*, vol. 22, no. 2, pp. 873–881, 2021.
- 12 R. Gupta, A. Mittal, V. Agrawal, *et al.*, "Odorify: A conglomerate of artificial intelligence–driven prediction engines for olfactory decoding," *Journal of Biological Chemistry*, vol. 297, no. 2, 2021.

## Proceedings

- 1 A. Mittal, **S. K. Mohanty**, M. Gupta, and G. Ahuja, "Evolv: A multimodal deorphanization approach for therapeutically relevant odorant receptors," in *CHEMICAL SENSES*, OXFORD UNIV PRESS GREAT CLARENDON ST, OXFORD OX2 6DP, ENGLAND, vol. 48, 2023.

## Skills

Coding	Python, R, SQL, PHP, Perl, C, C++, ...
Databases	MySQL, MongoDB.
Softwares	Modeller, Gromacs, Docker, LigBuilder, AutoDock, MGLtools, STAR, CellRanger, scVello, Seurat, MIMOSA, MEGA .
Visualisation	Pymol, UCSF Chimera, Adobe Illustrator, InkScape.
Languages	Strong reading, writing and speaking competencies for English, Hindi, and Odia (Native language).
Misc.	Academic research, teaching, training, consultation, illustration, and publishing.






## Academic Achievements

### Awards and Fellowships




2023	<b>Gold medalist</b> , The School of Earth, Environmental and Biological Science, CUSB, India <b>Best Graduate</b> , Department of Bioinformatics, CUSB, India
2021	<b>DST INSPIRE Fellowship</b> , (DST/INSPIRE/o3/2021/001936)
2020	<b>Merit Award</b> , CUSB Semester Topper Merit Scholarship 2019/2020
2019	<b>Merit Award</b> , CUSB Semester Topper Merit Scholarship 2018/2019

## Academic Achievements (continued)

### Conference/Symposium

- 2024  **Cell Symposia: Chemical biology in drugging the undrugged 2024** at UCSF, San Francisco, USA.
-  **ICGB-5: 5th International Conference on Genome Biology** at MKU, Madurai, India
- 2023  **Algorithms that Transformed Molecular Biology (ATMB)** at IIIT-Delhi, New Delhi, India
- 2022  **DBT-sponsored workshop on "AI in Modern Biology"** at ICGB, New Delhi India
- 2019  **Workshop Series on Machine Learning** at IIT-Patna, Patna, India

### Certification

- 2025  **European Molecular Biology Organization PhD course**, EMBO.
- 2024  **Lecture Course, Post-transcriptional regulation in ageing and age-related diseases**, EMBO.
- 2015  **Post-Graduation Diploma in CS**, NIITS.

## References

### Dr. Gaurav Ahuja

Associate Professor (CB)

IIIT-Delhi,

R&D Block (A-303),

New Delhi-110020, India.



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### Dr. Debarka Sengupta

Professor (CB, CSE)

IIIT-Delhi,

R&D Block (A-306),

New Delhi-110020, India.



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