

BIF Centre Report, 2024-25

Jamia Hamdard

1. Name of the Centre: Bioinformatics (BIF) Centre, Jamia Hamdard

2. Area of specialization: Drug discovery, Bioinformatics, Network Biology, Systems biology

3. Areas of specific research

Identification of druggable targets (genes/proteins) and candidate drugs, elucidation of human disease and drug mechanisms, *in silico* natural products research, drug design and discovery

4. Capacity building, 2024-25

- (1) 11th Bioinformatics Workshop on Use of Molecular Simulations in Biological Research, conducted during November 25-27, 2024.
- (2) 10th Bioinformatics Workshop on Molecular Docking and Molecular Dynamics Simulation conducted during January 18-19, 2025.

5. Manpower trained in current financial year

- 1) PhD Thesis (Submitted, 2024): 01
- 2) PhD Scholars (Currently working): 03
- 3) Practice school training (SPER, 8th Semester Project): 03
- 4) Currently working for their practice school project: 02
- 5) Dissertation (PG Semester IV students): 01
- 6) Dissertation (UG): 07
- 7) M. Pharm. Thesis (Completed): 01

6. Research Paper published in National/ International Journals

1) Nabiya Neshat, Zeeshan Hashmi, Rakibul Islam, Shams Aaghaz, Subham Das, Kalicharn Sharma, Mohd. Imran, Mohammad Mumtaz Alam, Mohammad Shaquiquzzaman, Mairaj Ahmed Ansari, Neeraj Kumar, Devendra Kumar Dhaked, Mymoona Akhter (2025) Indole-based heterocyclic conjugates: Design, synthesis, *in silico* studies and cholinesterase inhibition, *Journal of Molecular Structure*, 1319, 2025, 139529, <https://doi.org/10.1016/j.molstruc.2024.139529>

(1) Misbah, M., Kumar, M., Najmi, A.K. *et al.* Identification of expression profiles and prognostic value of RFCs in colorectal cancer. *Sci Rep* 14, 6607 (2024). <https://doi.org/10.1038/s41598-024-56361-2>

(2) Vyas, B., Kumar, S., Akhter, M. (2024). A Bioinformatics Insight on Agriculture. In: Kumar, P., Aishwarya (eds) *Technological Approaches for Climate Smart Agriculture*. Springer, Cham. https://doi.org/10.1007/978-3-031-52708-1_9

7. Centre Coordinator/ Dy. Coordinator

Prof. Shakir Ali, SCLS (Centre Coordinator)
Prof. Mymoona Akhtar, SPER (Centre Dy. Coordinator)
Dr. Jawed Ahmad, SEST (Member, BIF Committee)
Dr. Sayeed ur Rehman, SCLS (Member, BIF Committee)