12th Workshop on Bioinformatics and Drug Design: Artificial Intelligence (AI) and Machine Learning (ML) Based Methods
December 18-20, 2024, *Venue: Seminar Hall, Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, Delhi 110007*

Time	DAY 1 (18-12-2024)	DAY 2 (19-12-2024)	DAY 3 (20-12-2024)
8:30 – 9:00 a.m.	Registration		
Session I 09.00 – 11.30 a.m. (Day 1) 09.30 – 11.30 am (Day 2 & 3)	*Chairperson:*	*Chairperson:*	*Chairperson:*
	09:00 –10:00 a.m.: **Prof. Madhu Chopra**, ACBR, DU **Expertise**: Computer-aided drug design & development **Title**: Introduction to molecular modeling, QSAR, and virtual screening-based software tools	9.30 – 10.30 am: **Dr. Ankit Rajpal**, DU **Expertise**: Medical Imaging, explainable ML **Title**: Machine Learning Applications in Omics Data Analysis and Histopathological Image Processing	9.30 – 10.30 am: **Dr. Avinash Mishra**, CEO Growdea Technologies Pvt Ltd **Expertise**: Machine Learning in Drug Discovery **Title**: Revolutionizing Drug Discovery: Leveraging Advanced Machine Learning in Pharma and Biotech Research
	10.00 – 10.30 am *Welcome Address by Prof. Sunit K. Singh, Director ACBR & Chairperson workshop*		
	10:30 – 11:30 a.m.: Inaugural Talk by **Dr. Dinesh Gupta**, Group Leader, Translational Bioinformatics Group, ICGEB **Expertise**: Artificial Intelligence in Biology **Title: Awaited**	10:30 – 11:30 a.m.: Hands-on training session continued	10:30 – 11:30 a.m. **Mr. Shreyansh Suyash**, Growdea Technologies Pvt Ltd **Title**: Hands-on writing an ML python code for QSAR on Google Collab
11-30 – 11:45	Tea Break	Tea Break	Tea Break
Session II 11.45 am – 01.25 pm	*Chairperson:*	Chairperson:	Chairperson:
	11:45 – 1:25 p.m.: **Dr. Vipin Singh**, EdTech **Expertise**: Machine learning, Bioinformatics **Title**: R programming for Machine Learning Hands-on training session	11:45 – 1:25 p.m.: **Prof. Shandar Ahmad**, JNU, Delhi **Expertise**: Protein-DNA interactions, ML, DL **Title**: Integrative transcriptomics and universal language of gene expression Followed by a Hands-on training session	11:45 – 1:25 p.m. **Dr. Vineet K Sharma**, (IISER) Bhopal **Expertise**: Human microbiome, AI. **Title**: Applications of Artificial Intelligence and Machine Learning in Biology Followed by a Hands-on training session
01.30 – 2.30 p.m.	Lunch Break	Lunch Break	Lunch Break
Session III 02:30 – 04:30 p.m.	*Chairperson:*	*Chairperson:*	*Chairperson:*
	2:30-3:30 pm: **Dr. Mohd. Shoaib Khan**, ACBR, DU **Expertise**: Machine learning, Bioinformatics Hands-on training session **Title**: Python programming for Machine Learning, Libraries in Python for ML.	2:30-3:30 pm: **Dr. Khalid Raja**, JMI, New Delhi **Expertise**: Soft Computing and Computational Biology **Title**: Harnessing AI and Deep Learning in Molecular Design: Transforming Data into Therapeutics	2:30-3:30 pm: **Dr. Tavpritesh Sethi**, IIIT, Delhi **Expertise**: AI, Machine learning, Bioinformatics **Title: Awaited**
	3:30-4:30 pm: Hands-on training sessions continued	3:30-4:30 pm: **Dr. Shailesh Kumar**, NIPGR Delhi **Expertise**: Plant Biotechnology, AI, ML **Title**: Designing Plant-based Antimicrobial Peptides by using Machine Learning Methodologies	3:30-4:30 pm: Valedictory **Prof. Andrew M Lynn**, JNU, Delhi **Expertise**: Computational Biology, Biophysics **Title**: Use of generative AI to predict future variants of infectious diseases
04:30 – 04.45 p.m.	Tea Break	Tea Break	Valedictory Function, concluding remarks, and Vote of thanks
Session IV 04.30 – 5.30 p.m.	**Dr Prakash Jha**, ACBR, DU **Expertise**: Structural Biology, Bioinformatics Hands-on training session **Title**: MD Simulation using Google Colab	**Dr. Shailesh Kumar**, NIPGR Delhi Hands-on training session continued on the tool "PTPAMP"	Tea