

11th Workshop on Bioinformatics and Drug Design: Artificial Intelligence (AI) and Machine Learning (ML) Based Methods
April 18-20, 2023, Venue: Seminar Hall, Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, Delhi 110007

Time	DAY 1 (18-04-2023)	DAY 2 (19-04-2023)	DAY 3 (20-04-2023)
8:30 – 9:00 a.m.	Registration		
Session I		<i>Chairperson: Prof. K. Natarajan</i>	<i>Chairperson: Prof. Uma Chaudhry</i>
09.00 – 11.30 a.m. (Day 1)	09:00 –10:00 a.m.: Prof. Madhu Chopra , ACBR, DU Expertise: Computer aided drug design & development Topic: Introduction to molecular modeling, QSAR and virtual screening-based software tools	9.30 – 10.30 am: Dr. Lipi Thukral , IGIB, New Delhi Expertise: Computational Structural Biology Topic: AI-based Alphafold2 expands the structural space of Autophagy	9.30 – 10.30 am: Prof. Punit Kaur , AIIMS, New Delhi Expertise: Structural Bioinformatics Topic: Digging through DNA Gyrase structure to unravel molecular nuances for Drug Design
09.30 – 11.30 am (Day 2 & 3)	10:00 – 11:00 a.m.: Dr. Girinath Pillai , Lead Scientist, Sygnature Discovery, UK (online) Expertise: SAR, Machine Learning Topic: Drug Design using Generative AI	10:30 – 11:30 a.m.: Dr. Mohd. Shoaib Khan , ACBR, DU Hands on training session Expertise: Machine learning, Bioinformatics Topic: Python and its various libraries for Machine Learning	10:30 – 11:30 a.m. Dr. Raja Mugasimangalam , Founder and CEO, Genotypic Technology, Bengaluru, India Expertise: Genomics, Bioinformatics Topic: Genomics assisted drug design and recent developments in multi omics-based drug design
11.30 – 11:45	Tea Break	Tea Break	Tea Break
Session II 11.45 am – 01.25 pm	<i>Chairperson: Dr. Alok C. Bharti</i>	<i>Chairperson: Prof. Daman Saluja</i>	<i>Chairperson: Dr. Kamna Shrivastava</i>
	11:45 – 12:35 p.m.: Prof. Shandar Ahmad , JNU Expertise: Protein-DNA interactions, Machine Learning, Deep Learning, Big Data Analysis Topic: Artificial Intelligence and functional genomics in systems level drug and target discovery	11:45 – 12:35 p.m. : Dr. D. Sengupta , IIIT Delhi Expertise: AI and Big Data analytics in health sciences Topic: Enabling precision oncology with omics and AI	11:45 – 12:35 p.m. Dr. Mohd. Shoaib Khan , Hands on training session Topic: Target prediction using various Machine learning algorithms
	12.35 – 1.25 p.m.: Dr. Gitanjali Yadav , Staff Scientist V NIPGR, New Delhi Expertise: Computational ecology and system Biology. Topic: Unpacking plant chemical arsenals by using ML and data mining strategies	12.35 – 1.25 p.m. Prof. D. K. Vishwakarma , DTU Expertise: Machine Learning and Deep Learning Topic: Human Activity Recognition using Machine Learning	12.35 – 1.25 p.m. Hands on training session continued
01.30 – 2.30 p.m.	Lunch Break	Lunch Break	Lunch Break
Session III	<i>Chairperson: Prof. Madhu Chopra</i>	<i>Chairperson: Prof. Madhu Chopra</i>	<i>Chairperson: Prof. Sunit K. Singh, Director ACBR</i>
02:30 – 03:15 p.m.	Dr. Mohd. Shoaib Khan , ACBR, DU Expertise: Machine learning, Bioinformatics Topic: Python programming for Machine Learning, Libraries in Python for ML.	Mr. Prakash Jha , ACBR, DU Hands on training session Expertise: Structural Biology, Bioinformatics Topic: Molecular Dynamics using Gromacs	Dr. C. Vijay Kumar , INMAS-DRDO, Delhi Expertise: Artificial Intelligence and machine leaning in health sciences Topic: Computational Frameworks for the Integration of Multimodal Neuroimaging Information
03:15 – 03.30 p.m.	Tea Break	Tea Break	Valedictory Function, concluding remarks and Vote of thanks
Session IV	Prakash Jha , ACBR, DU Hands on training session Topic: Basic drug design and virtual screening	Mr. Prakash Jha , ACBR, DU Hands on training session Topic: Activity prediction using WEKA: ML-based methods	Tea
03.30 – 5.30 p.m.			