

**A BRIEF REPORT ON DST-STUTI SPONSORED SEVEN DAYS
HANDS ON TRAINING PROGRAMME ON “Utilizing Modern
Techniques in Developing Human Disease Models”
Held from (31th Jan – 5th Feb 2023)**

The Department of Science & Technology under the aegis of Synergistic Training Programme Utilizing the Scientific & Technological Infrastructure (DST-STUTI), sponsored a one-week Hands-on training program on Advanced Molecular Biology techniques, which was organized from 31st Jan – 5th Feb 2023, by the Department of Toxicology, SCLS, Jamia Hamdard, as a project management unit (PMU). The DST-STUTI Scheme is intended to provide training to human resources and its capacity building through open access to science and technology infrastructure across the country in departments funded under various DST schemes like DST-FIST, PURSE, and SATHI. This event is aimed at providing hands-on training and sensitization of state-of-the-art equipment and ensuring transparent access to science and technology facilities. Moreover, it will enable budding researchers and professionals to develop a better understanding and familiarization with the available resources/scientific equipment supported by the Govt. of India. The workshop was attended by all the graduate, post-graduate, research scholars and, faculty members.

The primary objective of the workshop was to impart both theoretical and practical knowledge of molecular techniques used for addressing research problems as well as their applications in agriculture, molecular medicine, and the detection and characterization of infectious organisms. The different techniques of molecular biology including Animal Tissue culture Techniques, Staining, Nucleic acid extraction, cDNA preparation, quantification, RT-PCR, HPLC, and FTIR were covered during the workshop in a systematic manner. Moreover, the workshop aimed to enhance the knowledge of the most efficient use of materials, reagents, and interpretation of the results.

In order to prepare the participants for the hands-on practical sessions, the resource persons delivered a series of introductory lectures on “Utilizing Modern Techniques in Developing Human Disease Models”. The topics covered in the lecture sessions were relevant to the needs of the participants and covered the fundamental principles and procedures required for molecular biology techniques. Fifteen invited speakers who are eminent scientists from prominent institutions in the country were invited to deliver talks covering myriad applications during these seven days.

The inaugural function of the Training Programme was held on 30th January at Convention Centre, Jamia Hamdard. The function was attended by **Shri. Akhilesh Jha** – Chief Controller of Accounts, Department of Science and Technology, Govt. of India(Chief Guest), **Dr. Abdul Mabood Khan** – Scientist G, Director -in-Charge ICMR National Jalma Institute of Leprosy & Other Mycobacterial Diseases(Guest of Honour), **Dr. Pratishtha T. Pandey** – Scientist F, Head R&D Infrastructure Division DST, Govt. of India, **Prof. (Dr.) S.**

Raisuddin – Dean SCLS, **Prof. (Dr.) Suhel Parvez** – Coordinator DST-STUTI PMU, Jamia Hamdard. The function began with the recitation of Holy Quran.

Prof. (Dr.) S. Raisuddin – Dean SCLS welcomed the distinguished guests, participants and all gathered for the function. He stated that for this training programme an era of good scientists and faculties have been arranged for the talks and that the participants should have enough discussions with the resources. He also thanked DST to be generous to support Jamia Hamdard in the field of Science & Technology. Dr. Pratishta T. Pandey in her speech stated that STUTI was initiated to celebrate Azadi ka Amrit Mahotsav and so far 208 Training Programs have been conducted out of which 6840 researchers could benefit out of it.

Vote of thanks was delivered by Prof. (Dr.) Suhel Parvez Coordinator DST-STUTI PMU He firstly thanked the founder of the university who has given a place where 10,000 students are studying at one platform. He thanked Vice Chancellor of the university for allowing to organise so many wonderful events. He also thanked the distinguished guests, coordinators of various spokes, department heads, organising committee and the 31 participants who have come from across the country and wished that they benefit by the expert lectures and hands on training. The function concluded with National Anthem followed by High Tea.

The vast arrays of topics covered by the different invited speakers from Day 1 to the Day 7 of the workshop include:

- Lecture-I: Prof. Rizwanul Haque from CUSB, Gaya, Bihar entitled “**Telomerase mediated Apoptosis induction in Liver Cancer**” on the Day 1 of the workshop.
- Lecture-II: Dr. Ahmad Ali from the University of Mumbai entitled “**Sugar induced changes in Biomolecular Structure during Diabetes**” on the Day 1 of the workshop.
- Lecture-III: Dr. Ajazuddin from Rungta Institute, Bhilai Raipur entitled “**Animal Models in biomedical research with special reference to psoriatic animal models**” on the Day 1 of the workshop.
- Lecture-IV: Prof. C.M. Hossain from MAKAUT entitled “**Molecules to Molecules Challenges of Antimicrobial Drug Discovery with special focus on invasive candidiasis**” on the Day 2 of the workshop.
- Lecture-V: Dr. Vinay Gupta from BD – FACS Academy Jamia Hamdard entitled “**Application of Flow Cytometry in Human Diseases**” on the Day 2 of the workshop.
- Lecture-VI: Dr. Nidhi from Jamia Hamdard “**Epilepsy and Neuroinflammation: Exploring Role of Phytoconstituents**” on the Day 2 of the workshop.
- Lecture-VII: Dr. HEENA TABASSUM from ICMR entitled “**Modeling Traumatic Brain Injury in Rodents**” on the Day 3 of the workshop.

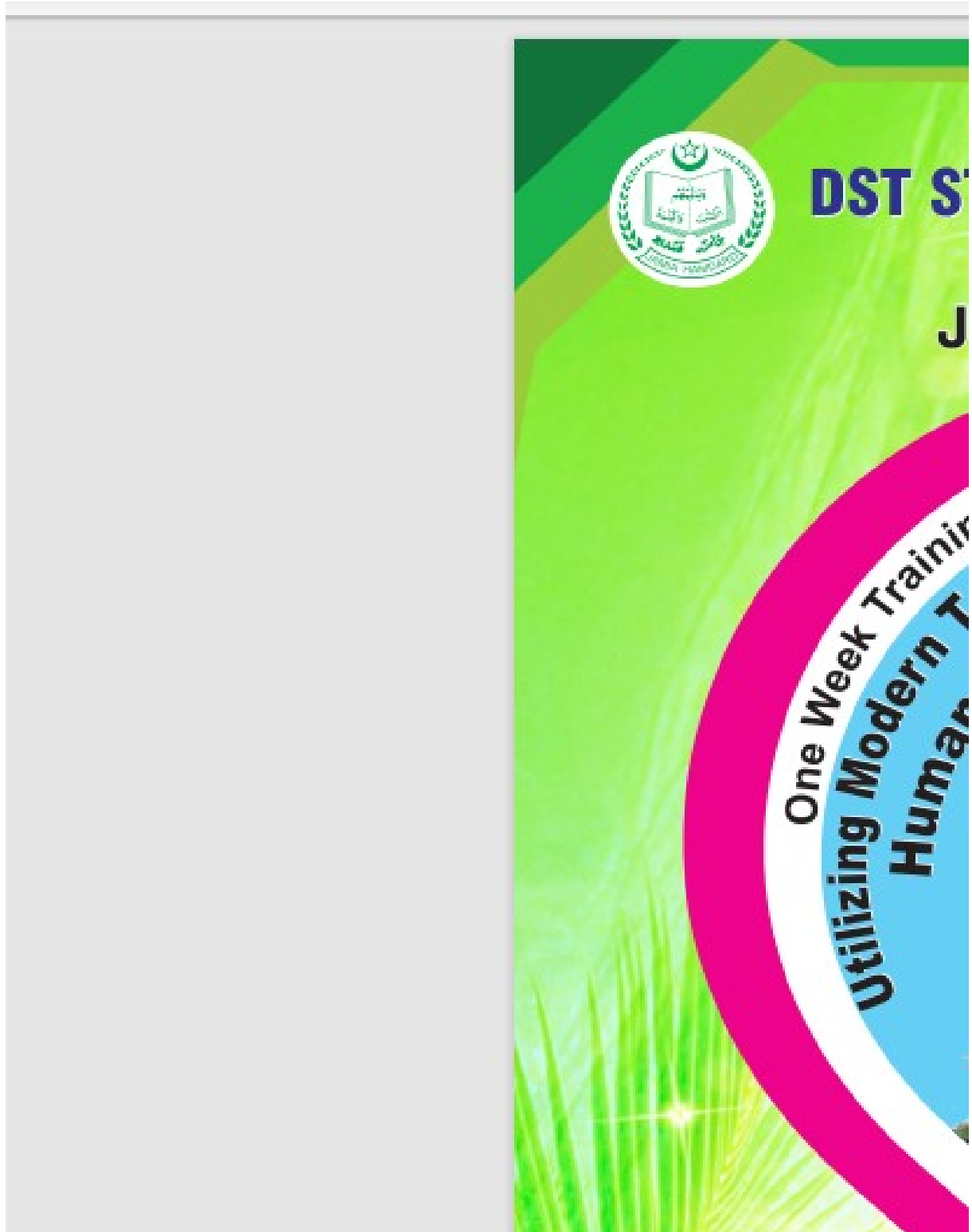
- Lecture-VIII: Dr. SUMIT AGGARWAL from ICMR entitled “**Heist for research funds in infectious diseases from ICMR**” on the Day 3 of the workshop.
- Lecture-IX: Prof. (Dr.) Suhel Parvez from Jamia Hamdard entitled “**Unravelling Models and Imbibing Techniques for Targeting Alzheimer’s Disease**” on the Day 4 of the workshop.
- Lecture-X: Dr. Pallab Bhattacharya from NIPER, Ahmedabad “**Stem Cell Therapy for stroke: A pre-clinical perspective**” on the Day 5 of the workshop.
- Lecture-XI Prof. Rajat Sandhir from Punjab University entitled “**Animal Models of Parkinson’s Disease**” on the Day 6 of the workshop.
- Lecture-XII Dr. Pravir Kumar from DTU entitled “**Neurological complications and its reversal mechanism in hypoxia-induced mice models**” on the Day 6 of the workshop.
- Lecture-XIII Dr. Rashmi Ambastha from DTU entitled “**Synergistic effects of bone marrow transplantation and biomolecule administration in STZ induced diabetic mice**” on the Day 6 of the workshop.
- Lecture-XIV Prof. S. Raisuddin from Jamia Hamdard entitled “**Zebrafish as an alternative model for the study of rare diseases**” on the Day 7 of the workshop.
- Lecture-XIV Dr. Yasir Hasan Siddiqui from Aligarh Muslim University Drosophila entitled “**Melanogaster as a research model for toxicity testing and human neurodegenerative diseases**” on the Day 7 of the workshop.

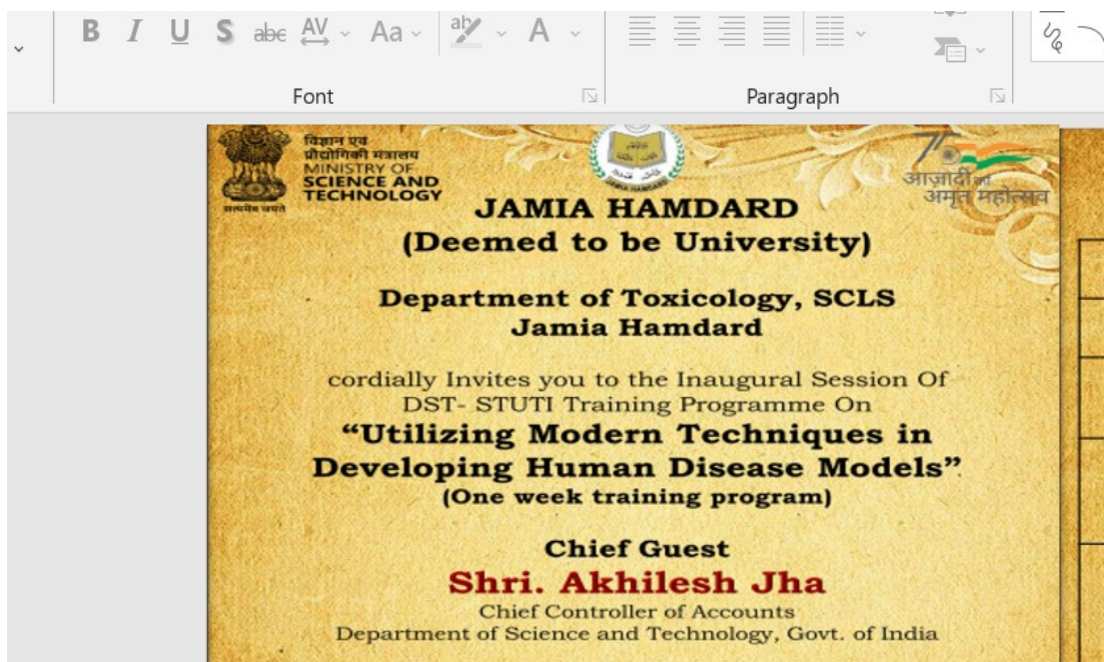
The workshop was attended by 31 participants which included Assistant professors and research scholars from different institutions namely Jamia Millia Islamia, New Delhi; Amity University, Lucknow; Rungta College of Pharmaceutical Science & Research, Bhilai, BANASTHALI VIDYAPITH, Rajasthan, Delhi Technical University, New Delhi, Babasaheb Bhimrao Ambedkar University, Lucknow, Kurukshetra University, Haryana, Government Post Graduate College, Noida/Chaudhary Charan Singh University-Meerut, Himachal Pradesh Technical University(HPTU), Hamirpur, H.P, University of North Bengal, Sharda University, Central University of Rajasthan, PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR, Government post graduate college Noida, DIPSAR, Jawaharlal Nehru University, New Delhi, Madurai Kamaraj University, KBC North Maharashtra University Jalgaon Maharashtra, National Centre for Nanoscience and Nanotechnology, Thiruvalluvar University.

The valedictory of the 7 days training program was conducted on 4th Feb 2023 in the presence of distinguished, Vice-Chancellor Dr. M Afshar Alam, Jamia Hamdard gave the presidential remarks and Guest of Honour, Dr. Heena Parveen, Jamia Hamdard, addressed to the delegates, Professor at Department of Toxicology, Jamia Hamdard. Prof. Suhel Parvez, Coordinator provided a brief report of the activities during the seven days of the training. He welcomed and thanked the invited guests for gracing the program and concluded by wishing

the participants good luck in their future endeavors. and the organizing committee members for the successful completion of the workshop. Prof. Parvez also appreciated the workshop for giving researchers a platform to raise their queries related to research. The participants were asked to provide feedback about the training program and given a certificate of participation. The valedictory ended with a vote of thanks delivered by the organizing secretary, Dr. Mohd. Akram, Head of the Department of Unani Medicine.

At the end of the workshop, questionnaires were distributed to the participants to get their feedback on the training methodology, and training materials and to get views on how to improve the workshop in the future. Overall, the participants were positive in their feedback and considered the workshop to have met its objectives. The participants considered the schedule of the workshop and technical arrangement of the practical sessions to be well organized. Their enthusiasm and interest were apparent from their 100% attendance on all days, presence throughout the long working hours, constant interactions, and zeal to know more. Even the refreshment break and Lunch provided on all days were enjoyed by them. In fact, they expressed the desire to attend more workshops on several topics to master the skills for becoming good researchers. They were also taken for a tour of the prominent heritage sites to witness the rich culture and traditions of Lucknow.





Different sessions from Day 1 to Day 7 of the workshop have been summed up in the following report:

Day 1,

INAUGURAL FUNCTION:

Synergistic Training Program utilizing the Scientific and Technological infrastructure (STUTI) is an initiative of Department of Science and Technology. It is a two-fold program and is designed to create awareness among school students by means of short training and popular science events and capacity building training program for Scientists, Professors, Ph.D. Scholars and Post Doc Fellows involved in research areas for maximal utilization of the existing facilities in the country. There are 13 Project Management Units and each PMU is organising 22 trainings throughout the year. Jamia Hamdard is one of the PMUs and the nodal centre. So far 17 training programmes are being conducted and the 18th programme is being held at the department of Toxicology, School of Chemical and Life Sciences, Jamia Hamdard.

The department of Medical Elementology and Toxicology is one of the few departments in India having full – fledged academic programme at Undergraduate/ Postgraduate and Doctoral levels in Toxicology. The department has made its mark in toxicological research and has been supported by the Department of Science & Technology through Fund for Improvement of S&T Infrastructure in Universities & Higher Educational Institutions FIST programme and University Grant Commission Special Assistance Programme The week long training programme on “**Utilizing Modern Techniques in Developing Human Disease Models**” is part of the series of STUTI training programme and will be conducted from 30th January to 5th February 2023. This programme gathered attendance from 12 states of PAN India and 31 participants were shortlisted based on their credentials.

The inaugural function of the Training Programme was held on 30th January at Convention Centre, Jamia Hamdard. The function was attended by **Shri. Akhilesh Jha** – Chief Controller of Accounts, Department of Science and Technology, Govt. of India(Chief Guest), **Dr. Abdul Mabood Khan** – Scientist G, Director -in-Charge ICMR National Jalma Institute of Leprosy & Other Mycobacterial Diseases(Guest of Honour), **Dr. Pratishtha T. Pandey** – Scientist F, Head R&D Infrastructure Division DST, Govt. of India, **Prof. (Dr.) S. Raisuddin** – Dean SCLS, **Prof. (Dr.) Suhel Parvez** – Coordinator DST-STUTI PMU, Jamia Hamdard. The function began with the recitation of Holy Quran.

Prof. (Dr.) S. Raisuddin – Dean SCLS welcomed the distinguished guests, participants and all gathered for the function. He stated that for this training programme an era of good scientists and faculties have been arranged for the talks and that the participants should have enough discussions with the resources. He also thanked DST to be generous to support Jamia Hamdard in the field of Science & Technology. Dr. Pratishtha T. Pandey in her speech stated that STUTI was initiated to celebrate Azadi ka Amrit Mahotsav and so far 208 Training Programs have been conducted out of which 6840 researchers could benefit out of it. The target is to benefit around 7500 researchers across PAN India through 13 PMU's. She requested the participants to attend the training program seriously, get in touch with other researchers, set small goals and stay motivated. Dr. Abdul Mabood Khan stated that this program Utilizing Modern Techniques in Developing Human Disease Models is very important for the young researchers and they should take this opportunity to take the maximum out of this. The researchers should contribute their maximum in the field of Science & Technology for the development of the country. Shri. Akhilesh Jha addressed the gathering stating that Evolution of mankind was from living particle so all of us have similar problems. We should have respect towards every object in this planet and that will give us strength to succeed in life. He requested the STUTI team to conduct such programmes in the various islands we have towards the south of the country and also places like Ladak giving the young researchers of those places also a similar opportunity.

Vote of thanks was delivered by Prof. (Dr.) Suhel Parvez Coordinator DST-STUTI PMU He firstly thanked the founder of the university who has given a place where 10,000 students are studying at one platform. He thanked Vice Chancellor of the university for allowing to organise so many wonderful events. He also thanked the distinguished guests, coordinators of various spokes, department heads, organising committee and the 31 participants who have come from across the country and wished that they benefit by the expert lectures and hands on training. The function concluded with National Anthem followed by High Tea.

Technical Session

The inaugural function was followed by the worthy presentations of three invited speakers viz. **Prof. Rizwanul Haque**, CUSB, Gaya, Bihar, and **Dr. Ahmad Ali**, University of Mumbai, and, Dr. Ajazuddin, Rungta Institute of Bhilai Raipur.

- Lecture-I: Prof. Rizwanul Haque from CUSB, Gaya, Bihar entitled “**Telomerase mediated Apoptosis induction in Liver Cancer**” on the Day 1 of the workshop.

- Lecture-II: Dr. Ahmad Ali from the University of Mumbai entitled “**Sugar induced changes in Biomolecular Structure during Diabetes**” on the Day 1 of the workshop.
- Lecture-III: Dr. Ajazuddin from Rungta Institute, Bhilai Raipur entitled “**Animal Models in biomedical research with special reference to psoriatic animal models**” on the Day 1 of the workshop.

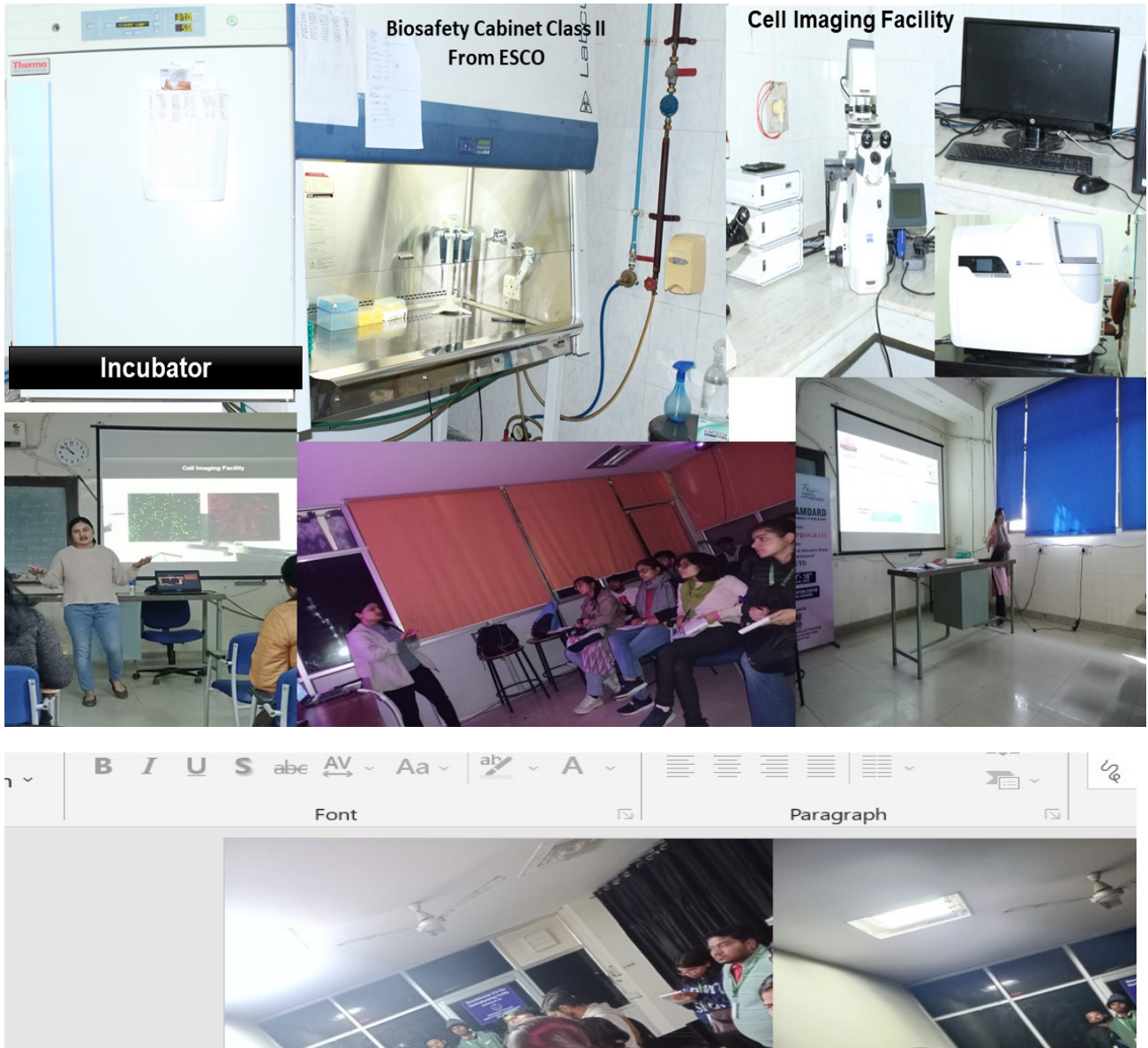
Prof. Rizwanul Haque delivered a talk on the topic “**Telomerase-mediated Apoptosis induction in Liver Cancer**”. He enlightened the delegates about the growing impact of automation on different facets of liver cancer. Prof. Haque explained how emerging technologies are enabling laboratory automation to occur on a large scale, with a less prohibitive price tag, and discussed the potential of smart labs to significantly transform the R&D environment. He concluded that automation has been a ground-breaking technology that has driven progress in many sectors including science.

The second speaker, **Dr. Ahmad Ali**, presented a very informative lecture on “**Sugar-induced changes in Biomolecular Structure during Diabetes**”. His talk emphasizes on the development of a novel set of markers and its application in diabetes and comparative mapping, molecular genetic diversity studies, and cloning of genes or quantitative trait loci (QTLs) leading to sequencing and annotation of large genomic DNA fragments.

The third speaker **Dr. Ajazuddin**, presented a very informative lecture on “**Animal Models in biomedical research with special reference to psoriatic animal models**”. He enlightened the delegates about the growing impact of biomedical research. Dr. Ajazuddin explained how emerging technologies are enabling animal models used in biomedical research.

After the invited lectures, the delegates were given hands-on training on neurobehavioural parameters and cell culture in two groups led by Ms. Medha Kaushik, and Ms. Pinky.





Day 1: Hands-on -training Cell Culture and Neurobehaviour parameters

Day 2,

The invited speakers for Day 2 were Prof. C.M. Hossain, MAKAUT, Dr. Vinay Gupta, Jamia Hamdard, Dr. Nidhi, Jamia Hamdard.

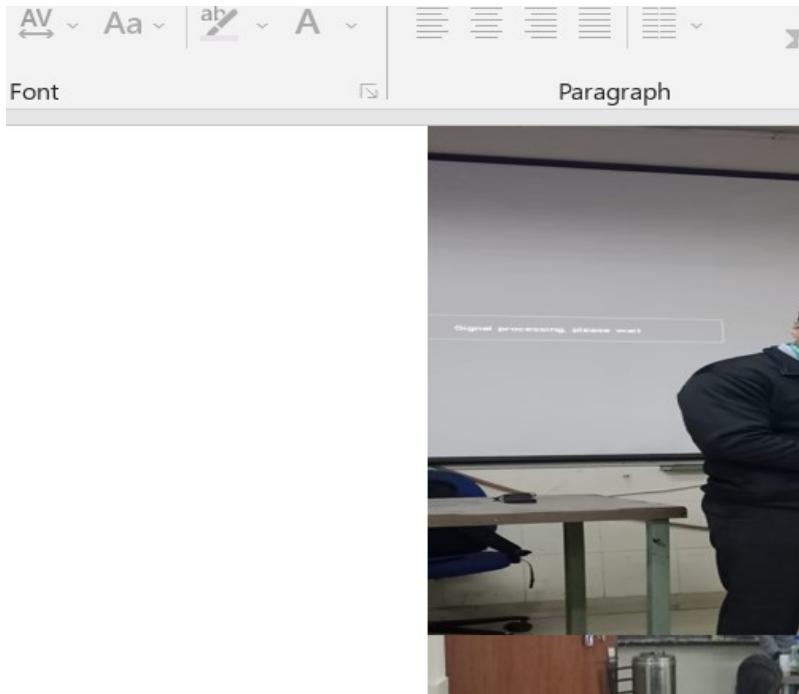
- Lecture-IV: Prof. C.M. Hossain from MAKAUT entitled “**Molecules to Molecules Challenges of Antimicrobial Drug Discovery with special focus on invasive candidiasis**” on the Day 2 of the workshop.
- Lecture-V: Dr. Vinay Gupta from BD – FACS Academy Jamia Hamdard entitled “**Application of Flow Cytometry in Human Diseases**” on the Day 2 of the workshop.
- Lecture-VI: Dr. Nidhi from Jamia Hamdard “**Epilepsy and Neuroinflammation: Exploring Role of Phytoconstituents**” on the Day 2 of the workshop.

Prof. C.M. Hossain discussed the “**Molecules to Molecules Challenges of Antimicrobial Drug Discovery with a special focus on invasive candidiasis**”. He enlightened the delegates with the growing impact of automation on different facets of drug discovery and design. Prof. Hossain explained how emerging technologies are enabling laboratory automation to occur on a large scale, with a less prohibitive price tag, and discussed the potential of smart labs to significantly transform the R&D environment. He concluded that automation has been a ground-breaking technology that has driven progress in many sectors including science.

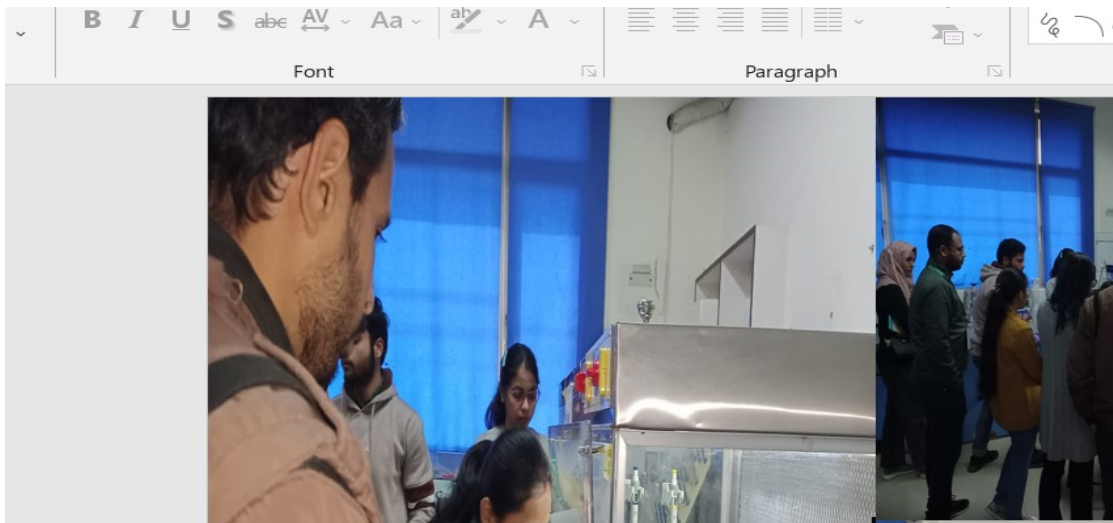
Dr. Vinay Gupta delivered a talk on “**Application of Flow Cytometry in Human Diseases**”. He discussed the application of using FACS to detect and measure the physical and chemical characteristics of a population of cells or particles. A flow cytometry analyzer is an instrument that provides quantifiable data from a sample.

Dr. Nidhi delivered a talk on “**Epilepsy and Neuroinflammation: Exploring Role of Phytoconstituents**”. She enlightened the delegates with the growing impact of epilepsy; a brain dysfunction with a paroxysmal character and the spontaneous attacks are triggered by erroneous synchronous discharges of neurons, which manifest themselves as loss of consciousness, tonic muscle contraction, and sensory and vegetative disorders. She also discussed about the wide range of antiepileptic drugs (AEDs) have been used to treat patients with epilepsy.

After the lectures, the participants were given hands-on training on *c.elegans* in two groups led by Ms. Nisha attri.



Day 2: Interactive sessions by invited speakers Dr. Vinay Gupta on BD-FAC



Day 2: Hands-on -training *C.elegans* facility

Day 3

The invited speakers for Day 3 were Dr. Heena Tabassum, (ICMR), and Dr. Sumit Aggarwal (ICMR).

- Lecture-VII: Dr. HEENA TABASSUM from ICMR entitled “**Modeling Traumatic Brain Injury in Rodents**” on the Day 3 of the workshop.

- Lecture-VIII: Dr. SUMIT AGGARWAL from ICMR entitled “**Heist for research funds in infectious diseases from ICMR**” on the Day 3 of the workshop.

Dr. Heena Tabassum discussed the role of “**Modeling Traumatic Brain Injury in Rodents**” She emphasized on the most complex disease in the most complex organ of the body. It is the most common cause of death and disability in the Western world in people <40 years old and survivors commonly suffer from persisting cognitive deficits, impaired motor function, depression and personality changes. TBI may vary in severity from uniformly fatal to mild injuries with rapidly resolving symptoms and without doubt, it is a markedly heterogeneous disease.

Dr. Sumit Aggarwal’s talk provided quick theoretical insight to “**Heist for research funds in infectious diseases from ICMR**”. He discussed about health research plays an integral part in scientific and academic innovation in health care. India, a rapidly developing country, showed a tremendous increase in the number of health research projects and publications in recent years. Given the broad spectrum of health research areas and the vast number of funding agencies that fund specific areas, it is difficult to gain knowledge about them from a single source. Hence, we scanned the various funding opportunities which exist in India for healthcare research. Various agencies fund healthcare research on their thrust areas of national importance.

Day 4,

The invited speakers for Day 4 were **Prof. Suhel Parvez**, SCLS, Jamia Hamdard.

- Lecture-IX: Prof. (Dr.) Suhel Parvez from Jamia Hamdard entitled “**Unravelling Models and Imbibing Techniques for Targeting Alzheimer’s Disease**” on the Day 4 of the workshop.

Prof. Suhel Parvez gave a presentation on “**Unravelling Models and Imbibing Techniques for Targeting Alzheimer’s Disease**”. He explained that Alzheimer’s disease (AD), is a commonly encountered neurodegenerative disorder, that causes cognitive decline and has a devastating effect on the quality of life. AD occurs mainly through abnormal amyloid β peptide ($A\beta$) and tau protein (τ) activity around/in neurons. $A\beta$ -based therapeutic techniques have struggled to treat AD over the past few decades. In addition, the complexity in treating AD is due to diverse factors regulating its pathology. He also emphasizes on the recent advances regarding various pathological approaches and provides an overview of the most recent medications for AD.

After this session, the hands-on training was commenced by Ms. Neha and Dr. Swati Chandra who basically introduced the delegates to the various molecular techniques involved

in checking the determination of proteins and associated genes via western blotting and RT-PCR.



Day 4: Interactive sessions by invited speaker Dr. Heena Tabassum and hands-on training on Molecular techniques

Day 5,

The invited speakers for the Day 5 were **Dr. Pallab Bhattacharya**, NIPER.

- Lecture-X: Dr. Pallab Bhattacharya from NIPER, Ahmedabad **“Stem Cell Therapy for stroke: A pre-clinical perspective”** on the Day 5 of the workshop.

Dr. Pallab Bhattacharya delivered a detailed lecture on **“Stem Cell Therapy for stroke: A pre-clinical perspective”**. He stated that Exogenous stem cell therapy (SCT) has been recognized recently as a promising neurodegenerative strategy to augment recovery in stroke survivors. Mesenchymal stem cells (MSCs) are the primary source of stem cells used in the majority of both pre-clinical and clinical studies in stroke. In the absence of evidence-based guidelines on the use of SCT in stroke patients, understanding the progress of MSC research across published studies will assist researchers and clinicians in better-achieving success in translating research.

The presentations were followed by surgery models of AD, TBI, Stroke by Ms. Neha, Mr. Rohan and, Mr. Shaney Rehman.

Day 6,

The invited speakers for Day 6 were **Prof. Rajat Sandhi**, Punjab University and **Dr. Pravir Kumar**, DTU, and Dr. Rashmi Ambastha, DTU.

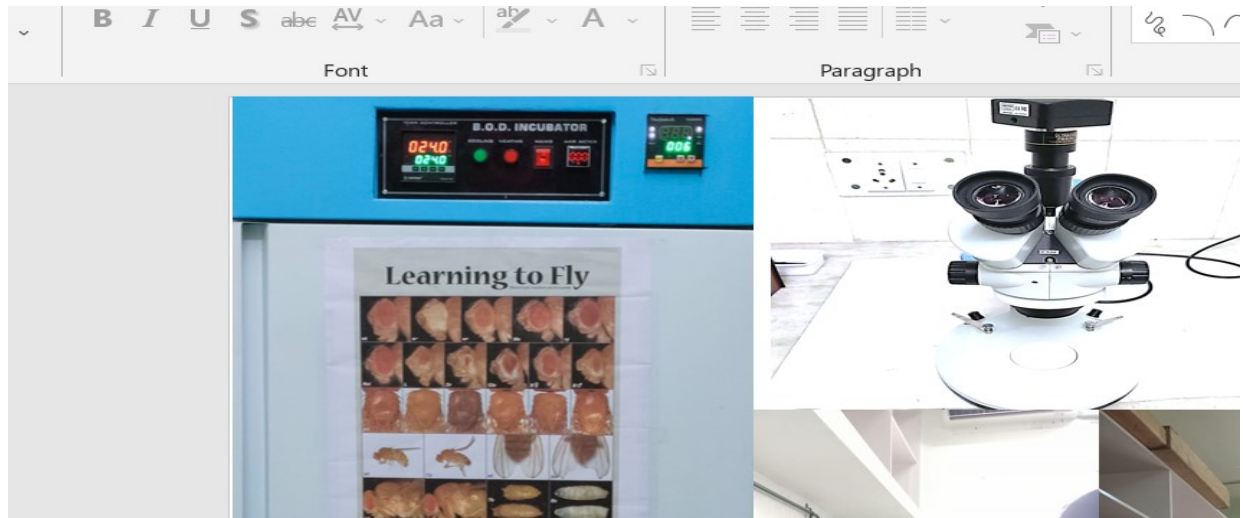
- Lecture-XI Prof. Rajat Sandhir from Punjab University entitled “**Animal Models of Parkinson’s Disease**” on the Day 6 of the workshop.
- Lecture-XII Dr. Pravir Kumar from DTU entitled “**Neurological complications and its reversal mechanism in hypoxia-induced mice models**” on the Day 6 of the workshop.
- Lecture-XIII Dr. Rashmi Ambastha from DTU entitled “**Synergistic effects of bone marrow transplantation and biomolecule administration in STZ induced diabetic mice**” on the Day 6 of the workshop.

Prof. Rajat Sandhir delivered a lecture the titled “**Animal Models of Parkinson’s Disease**”. Parkinson’s disease (PD) is a heterogeneous disease with varying ages of onset, symptoms, and rates of progression. This heterogeneity requires the use of a variety of animal models to study different aspects of the disease. Neurotoxin-based approaches include exposure of rodents or non-human primates to 6-OHDA, MPTP, and agrochemicals such as the pesticide rotenone, the herbicide paraquat, and the fungicide maneb.

Dr. Pravir Kumar delivered a lecture titled “**Neurological complications and its reversal mechanism in hypoxia-induced mice models**”. Dr. Kumar emphasized on “hypoxia” which applies when an organ experiences oxygen delivery that is insufficient to meet the metabolic needs of the tissue. He also talked about the pathological mechanisms precipitated by cerebral hypoxia or anoxia are similar, and the terms “anoxic brain injury” and “hypoxic brain injury” are sometimes used interchangeably.

Dr. Rashmi Ambastha delivered a lecture the titled “**Synergistic effects of bone marrow transplantation and biomolecule administration in STZ-induced diabetic mice**”. She emphasized that insulin administration is the most common and effective treatment for T1DM. It has been recommended to maintain blood glucose levels within a tight range to reduce the complications of T1DM. However, good glycemic control is not easily achieved by all patients, and the tight range control of blood glucose levels increases the risk of hypoglycemia.⁵ Therefore, PI transplantation would physiologically be the most effective treatment, if successfully achieved.

The post-lunch technical session began with the demonstration of the Drosophila facility by Ms. Saba.



Day 6: Hands-on -training Drosophila facility

Day 7,

Technical Session:

The invited speakers for Day 7 were **Prof. S. Raisuddin, Jamia Hamdard,** and **Dr. Yasir Hasan Siddiqui.**

- Lecture-XIV Prof. S. Raisuddin from Jamia Hamdard entitled **“Zebrafish as an alternative model for the study of rare diseases”** on the Day 7 of the workshop.
- Lecture-XIV Dr. Yasir Hasan Siddiqui from Aligarh Muslim University Drosophila entitled **“Melanogaster as a research model for toxicity testing and human neurodegenerative diseases”** on the Day 7 of the workshop.

Prof. S. Raisuddin delivered a lecture titled **“Zebrafish as an alternative model for the study of rare diseases”**. Prof. Raisuddin explained the importance of zebrafish has emerged as a powerful animal model for investigating rare diseases. Zebrafish combines conserved vertebrate characteristics with a high rate of breeding, limited housing requirements and low costs.

Dr. Yasir Hasan Siddiqui delivered a lecture titled **“Melanogaster as a research model for toxicity testing and human neurodegenerative diseases”**. **Prof. Siddiqui** explained the genetically amenable fruitfly has established *Drosophila melanogaster* as a valuable model system in the study of human neurodegeneration. He also suggested that Drosophila is the most reliable model for Alzheimer’s, Parkinson’s, and motor neuron diseases, as well as models for trinucleotide repeat expansion diseases, including ataxias and Huntington’s disease.



Day 7: Interactive sessions by an invited speaker on Drosophila

The workshop ended with the valedictory program.

Valedictory Programme:

The Valedictory function of the Training Programme was held on 4th Feb at Convention Centre, Jamia Hamdard. The valedictory program started with the brief report of activities during the seven days of training by Prof. Suhel Parvez, Coordinator of the workshop. He welcomed and thanked the invited guests gracing the programme and concluded by wishing the participants good luck for their future endeavours.

Vice-Chancellor Dr. M Afshar Alam, Jamia Hamdard congratulated Jamia Hamdard and the organising committee members for successful completion of the workshop. She emphasised the importance of this workshop in the present scenario where training programmes are very much required in capacity building and placement of students in reputed companies across the globe. Dr. Heena Parveen, Jamia Hamdard congratulated Jamia Hamdard for successful workshop and addressed the participants.

Dr. Mohd. Akram praised the Jamia Hamdard for being the best deemed university in New Delhi and congratulated the team STUTI for organising such a wonderful workshop. Prof. Suhel Parvez, Dr. Mohd. Akram and the STUTI team distributed certificates of participation to the participants in the Workshop.

All the participants gave their feedback and shared their experiences during seven days of the workshop. They all appreciated the presentations given by the invited speakers, training sessions by the experts, the hospitality, and the management by the team.

The valedictory function concluded with a vote of thanks by the organising secretary Dr. Mohd. Akram. He appreciated the efforts of participants for their presence and keen interest in the workshop and acknowledged the contribution of DST, Jamia Hamdard who were instrumental in making the training program successful.



