

AMITY INSTITUTE OF BIOTECHNOLOGY
AMITY UNIVERSITY MADHYA PRADESH, GWALIOR

**2nd National Workshop Cum hands-on-Training on Advance Techniques in
Molecular Biology, Medical Biotechnology, Industrial Microbiology and
Bioinformatics.**

10-16 October, 2018

Detailed Report

Amity Institute of Biotechnology, Amity University Madhya Pradesh Gwalior organised a seven days *2nd National Workshop Cum hands-on-Training on Advance Techniques in Molecular Biology, Medical Biotechnology, Industrial Microbiology and Bioinformatics.*

10-16 October, 2018

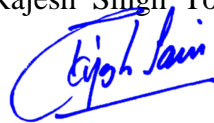
The workshop is intended to provide a right platform to the participants not only to update the new biotechnological techniques but also to discuss the most challenging issues in current scenario of life sciences with experts. The work shop meant to motivate participants to unfold their knowledge and get hands on training on most contemporary and advanced techniques used in life science research.

2nd Workshop Inaugural Session:10th October 2018.

The 2nd national work shop was inaugurated by lamp lighting ceremony followed by Saraswati Vandana in the presence of chief guest Prof. (Dr.) Sangeeta Shukla, Vice Chancellor, Jiwaji University, Gwalior, keynote speaker Prof. (Dr.) G.B.K.S. Prasad, Head, Centre of Food Technology, Jiwaji University, Gwalior, Honorable Vice Chancellor, AUMP, Lt. Gen. V.K. Sharma, Pro-Vice Chancellor, AUMP Prof. (Dr.) M.P. Kaushik and Convener of the workshop, Prof. (Dr.) R.S. Tomar along with all the participants and students .

On this occasion, Prof. (Dr.) Sangeeta Shukla Vice Chancellor, Jiwaji University, Gwalior thrust upon the applications of advanced bioinformatic tools and molecular techniques for the welfare of human health care. She further emphasized the importance of microbes and their exploitation by using various techniques for curing a disease like cancer. During inaugural session, Hon'ble Vice Chancellor AUMP addressed the audience about immortality and reduction in senescence and aging as a result of the application of new innovative and advanced biotechnological techniques. Afterwards, the laboratory manual of national workshop was released by the distinguished guest and dignitaries.

On this occasion, the Convener of National Workshop Prof. (Dr.) Rajesh Singh Tomar briefed about the theme of workshop and workshop schedule.


Registrar
Amity University Madhya Pradesh
Gwalior

The keynote speaker of inaugural session Prof. (Dr.) G.B.K.S. Prasad delivered a lecture on ‘Role of laboratory techniques and analyses in disease diagnosis and management’. He briefed the audience about various recent molecular techniques to manage and diagnose different diseases. The inaugural session concluded with felicitation of honorable guest.

The participants were given hands-on-training and in post lunch session demonstration on different medical biotechnology based techniques along with theoretical and practical aspects. The hand on training session was coordinated by Dr. Shuchi Kaushik, Dr. Sushmita Shrivastava and Dr. Pratishta Dwivedi, and faculty members of Amity Institute of Biotechnology.

The second day of the workshop 11th October 2018:

An expert lecture was delivered by Dr. Mahendra Gupta, Head, Department of Microbiology, Jiwaji University, Gwalior. Dr. Gupta delivered an expert lecture on ‘Concepts of Industrial Microbiology and Fermentation Technology’. He briefed the audience about different industrially important microbes, their characterization and focused on several products obtained from them through fermentation technology. The participants were given hands-on-training on the isolation of amylase producing bacteria and recovery of enzyme amylase by batch fermentation process. The hands-on- training session was coordinated by Dr. Vikash Shrivastava, Dr. Manish Kumar and Mrs. Sharmistha Banerjee.


The third day of the workshop 12th October 2018:

An expert lecture was delivered by Dr. Rahul Shrivastava, Associate Professor, Head, MNIT, Bhopal. Dr. Shrivastava delivered an expert lecture on “Molecular Modelling and Drug Designing”. He briefed about the importance of In-silico protein 3D image prediction and molecular modeling in current research scenario, such techniques not only save time but also cost effective.

The participants were given hands-on-training on the isolation of genomic DNA from bacteria through manual method using lysis buffer. During post lunch session demonstration on ampicillin resistant bacteria and plasmid DNA extraction was performed along with theoretical aspects. The hands-on- training session was coordinated by Dr. Raghvendra Mishra, Dr. Raghvendra saxena and Dr. Anurag Jyoti and faculty members of Amity Institute of Biotechnology.

The fourth day of the workshop 13th October 2018:

Dr. Puneet Singh Chauhan, Senior scientist, CSIR-NBRI, Lucknow, on delivered an expert lecture on ‘Assessment of microbial diversity by utilizing culturable and non-culturable techniques’. He emphasized the importance of molecular techniques like DNA fingerprinting and sequencing based techniques for the assessment of microbial diversity and


Registrar
Amity University Madhya Pradesh
Gwalior

use of commercially important microbial isolates. The participants were given hands-on-training on DNA-Polymerase chain reaction (PCR) through DNA Thermo cycler and gel-electrophoresis. The hands-on- training session was coordinated by Dr. Raghvendra Mishra, Dr. Raghvendra saxena and Dr. Anurag Jyoti and faculty members of Amity Institute of Biotechnology.

The sixth day of the workshop 15th October 2018:

Dr. R.Suresh Kumar, Scientist, ICMR-National Institute of Cancer Prevention Research (NICPR), Noida delivered an expert lecture on 'Epigenetics in Cancer'. He focused on the role of DNA methylation in gene silencing, genome protection from transposition and importance of DNA methylation in folic acid metabolism during embryonic development and compared DNA methylation status in normal and cancerous cells. The participants were given hands-on-training on Bioinformatic tools especially DNA sequence retrieval and phylogenetic analysis along with protein structure prediction and protein-ligand docking using different bioinformatic tools. During post lunch session demonstration on the application of docking and phylogeny was done with practical aspects. The hands-on-training session was coordinated by Dr. Shuchi Kaushik and Dr. Manish Kumar and faculty members of Amity Institute of Biotechnology.


The seventh and concluding day of the workshop, 16th October 2018:

the participants were given hands-on-training on tools of bioinformatics. During the session demonstration was given on different tools and techniques used in protein modeling, docking and transcriptome analysis along with brief discussion on theoretical and practical aspects. Faculty members of AIB helped out during hands on training session. The hands-on- training session was coordinated by Dr. Shuchi Kaushik and Dr. Manish Kumar and faculty members of Amity Institute of Biotechnology.

Valedictory Function of the 2nd Workshop:

The 2nd Workshop valedictory ceremony was begun with felicitation of chief guest Prof. (Dr.) K.K. Sijoria, Ayurvedic and Unani Tibbia college hospital, New Delhi with floral bouquet and memento. Followed by falicitation, Prof. M.P .kaushik, Pro Vic chancellor AUMP addressed the valedictory remark and pointed out the significance of the workshop. On this occasion Prof K.K.Sijoria shared his experiences and importance of the of workshops and urged more such workshops should be organized.

Prof. (Dr.) R.S. Tomar, Convenor of the workshop and Director AIB, concluded the session by giving concluding remark of all the lectures and training sessions which were conducted during the entire course of workshop. The valedictory session was ended with vote of thanks extended by Dr. Shuchi Kaushik, Firstly, she greatly acknowledged the MPCST for providing


Registrar
Amity University Madhya Pradesh
Gwalior

the financial assistance for the workshop. She expressed her gratitude to all the invited dignitaries and experts from various reputed organizations, She extended thanks to Hon'ble Vice Chancellor, AUMP, Pro Vice Chancellor, Director AIB, all the Director, Deans and HOI of AUMP. Last but not the least she thanked all the participants, faculty members and students who made the workshop a mega success.

Finally the workshop was concluded by distribution of , certificates to all the participants of work shop by Prof. R.K Sijouria, Prof. M.P. Kaushik Pro Vice Chancellor, AUMP and Prof.(Dr.) R.S. Tomar, Director, AIB & Dean (Academics)..

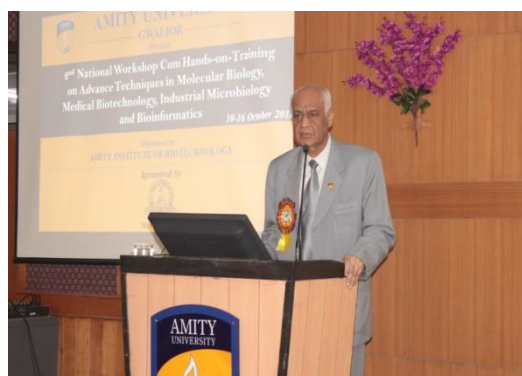


Registrar
Amity University Madhya Pradesh
Gwalior

2nd National Workshop at a Glance



**Garlanding of Maa Saraswati and Lamp Lighting
by dignitaries**



**Opening remarks by Hon'ble Vice chancellor
Lt. Gen. V. K. Sharma, AVSM (Retd.)**



**Release of Workshop Manual by the Dignitaries
on the Dais**



**Address by Chief Guest, Prof. (Dr.) Sangeeta
Shukla, Vice-Chancellor, Jiwaji University,**



**Keynote speech by Prof. (Dr.) G.B.K.S. Prasad, Coordinator, Centre of Food
Technology, Jiwaji University, Gwalior**


**Registrar
Amity University Madhya Pradesh
Gwalior**



Prof. (Dr.) Mahendra Gupta, Head, Department of Microbiology, Jiwaji University, Gwalior delivering his lecture on Fermentation Technology



Ms. Sharmistha Banerjee briefing the participants on hands on practice for upstream processing



Dr. Puneet Singh Chauhan, Head, Scientist, CSIR-NBRI, Lucknow delivering his lecture on Assessment of microbial diversity by utilizing culturable and non-culturable techniques



Dr. Suresh Kumar, Scientist, NICPR, Noida delivering his lecture on epigenetics in cancer.



Participants performing experiments in Bioinformatics lab during session


**Registrar
Amity University Madhya Pradesh
Gwalior**



Lamp Lighting by dignitaries at valedictory session



Address by guest of honour Prof. (Dr.) K. K. Sijoria



Welcome address by Pro-Vice chancellor Prof. (Dr.) M. P. Kaushik



Prof. (Dr.) R. S. Tomar delivering concluding remarks.



Hon'ble Vice-chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.) felicitating chief guest Prof. (Dr.) K. K. Sijoria



Chief guest and dignitaries presenting Certificates to a group of participants

Tripathi Jain

Registrar
Amity University Madhya Pradesh
Gwalior