2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

S.NO.	INSTITUTE/SCHOOL	NAME OF ACTIVITY UNDER EXPERIENTIAL LEARNING (INDUSTRIAL VISIT, INTERNSHIP, DISSERTATION, FIELD WORK AND MILITARY TRAINING)	DATE OF ACTIVITY	NAME OF ACTIVITY UNDER PARTICIPATIVE LEARNING / PROBLEM SOLVING METHODOLOGIES (HANDS-ON-WORKSHOP, CONFERENCES, SEMINAR AND INCLUSIVE LEARNING)	DATE OF ACTIVITY
	Amity Institute of Biotechnology	Internship	July-August 2017 July-August 2018 July-August 2019 July-August 2020 July-August 2021 July-August 2022	2nd National Workshop Cum Hands-on-Training on Advance Techniques in Molecular Biology, Medical Biotechnology, Industrial Microbiology and Bioinformatics	October 10-16, 2018
		Dissertation	January-June 2018 January-June 2019 January-June 2020 January-June 2021 January-June 2022	3rd National Workshop Cum Hands-on-Training on Advance Techniques in Molecular Biology, Medical Biotechnology, Industrial Microbiology and Bioinformatics	October 21-27, 2021
		Military Training	February 2018 February 2019 February 2020 February 2022	NATIONAL SEMINAR ON CURRENT TRENDS IN LIFE SCIENCES	November 10, 2017
				9 th International Congress of Environmental Research 2nd National Seminar on	08-10 February 2018 February 27, 2019



	Current Trends in Life	
	Sciences-2019	
	2 nd National Conference	25 February 2020
	on Recent Advances in	
	Biotechnology and	
	Nanobiotechnology	
	(BIONANO-2020)	
	3rd National Seminar on	January 29, 2021
	Current Trends in Life	
	Sciences	
	2 nd International	10-11 February
	Conference on Recent	2022
	Advances in	
	Biotechnology and	
	Nanobiotechnology	
	(Int-BIONANO-2022)	



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 <u>Detailed Report</u>

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.

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. Pratishtha 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 emphasasized the importance of molecular techniques like DNA fingerprinting and sequencing based techniques for the assessment of microbial diversity and use of commercially important microbial isolates. The participants were given hands-on-training on DNA-Polymerase chain reaction (PCR) through DNA Thermo cycler and gelelectrophoresis. 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 valediactory 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 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)..



2nd National Workshop at a Glance



Garlanding of Maa Saraswati and Lamp Lighting by dignitaries



Release of Workshop Manual by the Dignitaries on the Dais



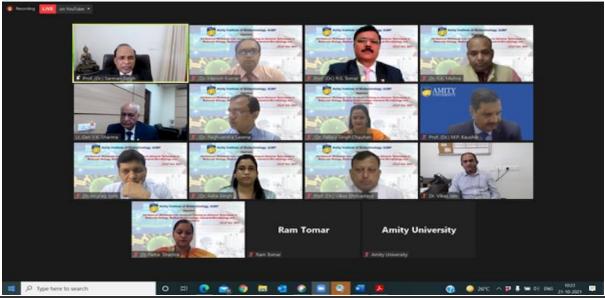
Opening remarks by Hon'ble Vice chancellor Lt. Gen. V. K. Sharma. AVSM (Retd.)



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



7 days National workshop cum Hands on Training on Advanced Techniques in Molecular Biology, Medical Biotechnology, Industrial Microbiology and Bioinformatics



Inaugural session of 3rd National Workshop in the presence of dignitaries

7 days National workshop cum Hands on Training on Advanced Techniques in Molecular Biology, Medical Biotechnology, Industrial Microbiology and Bioinformatics

Seven days National Workshop cum Hands on Training on "Advanced Techniques in Molecular Biology, Medical Biotechnology, Industrial Microbiology and Bioinformatics" was organized at Amity Institute of Biotechnology, Amity University Madhya Pradesh Gwalior from 21 to 27 October 2021.



DAY 1: On the first day 21 October 2021, workshop was inaugurated by lighting the lamp and Saraswati Vandana in the presence of chief guest Prof. (Dr.) Sarman Singh, Director, AIIMS, Bhopal, speaker of the session Prof. (Dr.) Vikas Jain, IISER, Bhopal, Hon'ble Vice Chancellor, AUMP, Lt Gen VK Sharma, Pro-Vice Chancellor, Prof. (Dr.) M.P. Kaushik and workshop convener Prof. (Dr.) R.S. Tomar along with all the participants and students.

During the session, Chief Guest Prof. (Dr.) Sarman Singh, Director, AIIMS, Bhopal explained the paradigm shift in molecular biology and tools along with the latest developments due to automation. Afterwards, the laboratory manual of the National Workshop was released online by the distinguished guests and dignitaries. The speaker of the inaugural session, Prof. (Dr.) Vikas Jain, IISER, Bhopal delivered a lecture on "Molecular Biology: Methods and tools". On this occasion, the convener of the National Workshop Prof. (Dr.) Rajesh Singh Tomar, Director-Amity Institute of Biotechnology and Dean (Academics) Amity University Madhya Pradesh informed about the contents of the workshop and workshop program. Furthermore, he proposed vote of thanks for the inaugural session. On the first day of the program, participants learnt about Molecular Biology based techniques along with theoretical and practical aspects. The hands-on- training session was live-streamed and coordinated by Dr. Raghvendra Kumar Mishra, Dr.

Raghvendra Saxena and Dr. Anurag Jyoti.

DAY 2: On the second day of the workshop 22nd October 2021, an expert lecture was delivered by Dr. Jyoti Priyadarshini Shrivastava, GRMC, Gwalior in the session of Medical Biotechnology. Dr. Jyoti delivered an expert lecture on 'Laboratory diagnosis of COVID-19'. Afterwards, The participants were given hands-on-training on Dot ELISA and Immuno-electrophoresis besides optimization of PCR



conditions using Gradient PCR. During post lunch session online demonstration of optimization of PCR conditions using Gradient PCR was done.

The hands-on- training session was coordinated by Dr. Neha Shrama, Dr. Anurag Jyoti and Dr. Asha Singh.

DAY 3: On the third day of the workshop 23rd October 2021, an expert lecture was delivered by Prof. (Dr.) Vikas Shrivastava, Amity Institute of Biotechnology, Amity University Madhya Pradesh, Gwalior in the session of Medical Biotechnology. In his deleberation, Dr. Vikas emphasised on the utilization of industrially important microbes along with the recovery of valuable products from them.

Another expert guest lecture was conducted in afternoon session by Dr. Pratishtha Dwivedi, Assistant Professor, Govt. Nehru College, Sabalgarh, Morena, M.P. on the topic ' Reverse vaccinology: bridging the gaps in vaccine design and development'.

DAY 5: On the fifth day of the workshop 25th October 2021, an expert lecture was delivered by Dr. Mithilesh Jaiswal, Tropilite foods pvt ltd, Gwalior in the session of Industrial Biotechnology. Dr. Jaiswal delivered an expert lecture on 'Role of probiotics and symbiotic in health and career build up'. Afterwards, another lecture was delivered by Dr. Manish Kumar, Assistant Professor, Amity Institute of Biotechnology on the topic 'Isolation and characterization of industrially important microbes'. During this lecture, the characterization and identification of microbes was elaborated and online videos prepared in AIB lab for isolation and purification experiments were displayed.

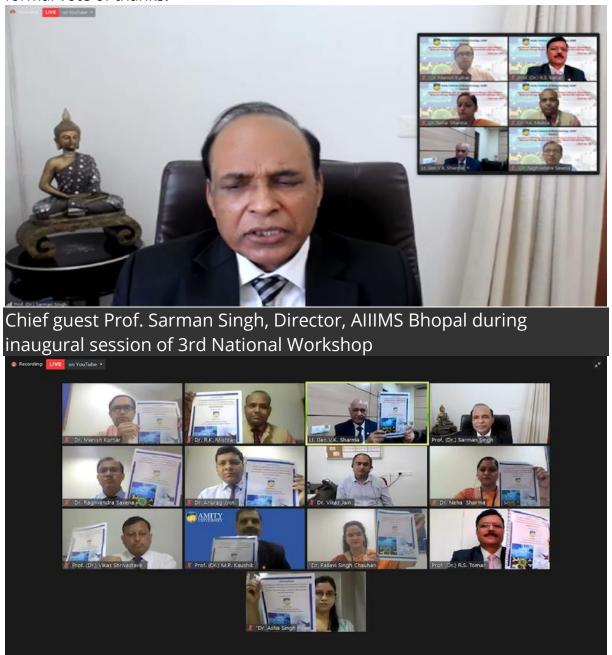
In the post lunch session, the online demonstration of upstreaming and downstreaming processes involved in the industries were elaborated by Prof.



Vikas Shrivastava, Amity Institute of Biotechnology. The session of industrial biotechnology was conducted by Prof. Vikas Shrivastava, Dr. Manish Kumar and Dr. Pallavi singh Chauhan.

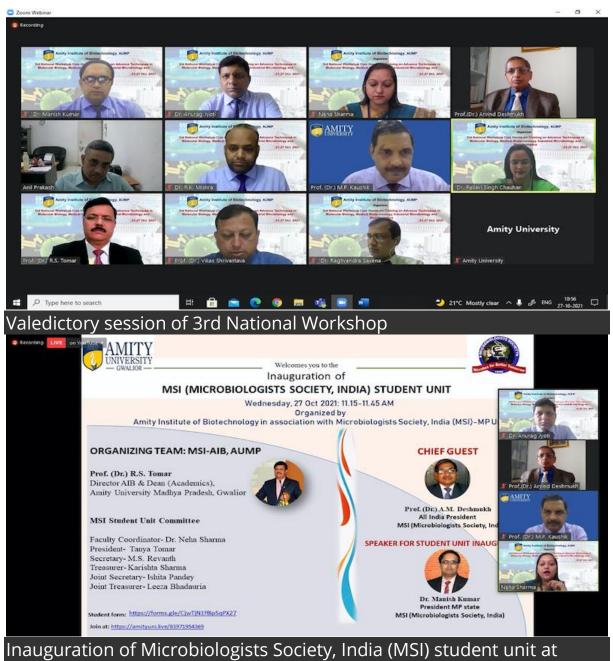
Day 6: On the sixth day of the workshop 26th October 2021, an expert lecture was delivered by Dr. Rajesh Patel, Bioinformatics lab and supercomputing facility, Department of Biosciences, Veer Narmada University, Gujarat in the session of Bioinformatics. Dr. Patel delivered an expert lecture on the topic 'Concepts, tools and techniques for in-silico drug discovery'. Furthermore, in this session the online demonstration of bioinformatics tools for phylogenetic analysis, protein homology modeling and protein-ligand docking was conducted by Dr. Manish Kumar, Assistant Professor, Amity Institute of Biotechnology. Afterwards, the protein-ligand docking by iGEM software along with immunoinformatics was described by Dr. Neha Sharma.

Day 7: On 7th day, an MCQ based test was conducted at 10:00-10:40 AM followed by Valedictory session at 11:00 AM. The chief guest of the session, Prof. A.M. Deshmukh, President, Microbiologists Society, India, suggested participants to utilize the techniques taught during workshop for the betterment of mankind. Furthermore, Dr, Manish Kumar, Assistant Professor, AIB has given brief introduction of Microbiologists Society, India as MP state President, Microbiologists Society, India (MSI). Student unit of Microbiologists Society, India was inaugurated in the presence of Pro-Vice Chancellor, AUMP, chief guest Prof. Deshmukh and Special guest Prof. (Dr.) Anil Prakash and Prof. (Dr.) R.S. Tomar, convener of the workshop. During valedictory session, convener of the national workshop Prof. (Dr.) R.S. Tomar, has given concluding remarks and summarize the activities of all days. Afterwards, Prof (Dr.) Vikas Shrivastava proposed formal vote of thanks.



Release of workshop manual during Inaugural session of 3rd National Workshop





Amity Institute of Biotechnology during valedictory session.







OUTCOME REPORT

of

National Seminar on "Current Trends in Life Sciences (NSCTLS-2017)"

Organized on 10th November, 2017

By

Amity Institute of Biotechnology Amity University Madhya Pradesh, Gwalior

General

 Life Sciences offer an integrated approach to deal with all the branches of biology i.e. Health care, Agriculture and Environment through knowledge generation, innovations and advancement of cutting edge technology. Advent of biotechnology in this direction plays a pivotal role in research and development aligned with diverse disciplines of science. Keeping this in view, Amity Institute of Biotechnology (AIB) conducted a National Seminar on "Current Trends in Life Sciences (NSCTLS-2017)" on 10th November, 2017. The national seminar provided a platform to discuss most challenging issues in current scenario of life sciences and discussed mitigation strategies, technological advancements, exchange of ideas among the scientific community, academicians in order to achieve sustainability in various dimensions of life sciences. The seminar also motivated young students to share their research findings and new ideas and interact with experts of subjects. Several distinguished eminent speakers from various reputed academic and research institutions were invited. They actively participated in the seminar to share their ideas and valuable inputs to the scholars in the field of life sciences.



- **2.** The National Seminar was organised with following objectives:
- (a) To create awareness amongst young students and familiarize with contemporary issues and challenges in Life Sciences.
- (b) To provide opportunity to the young scholars, scientists and academicians to interact with experts and share their ideas.
- (c) To identify the thrust areas of modern research in order to deal with most challenging issues in life sciences.
- (d) To provide collaboration possibilities among Scientists, Research scholars and Academicians.
- (e) To provide a forum for discussion on the current challenges, concerns and their mitigation strategies and mutual exchange of ideas.
- (f) To facilitate young students, scholars & researchers of AIB to display their research and connect themselves to scientific community.
- (g) To buildup brand value of AIB and AUMP as a premiere educational institution.
- (h) The publication of a souvenir of abstracts for future reference.

<u>Pre – Seminar Outcomes</u>

3. <u>Tangible Outcomes</u>

- (a) The seminar received wide publicity among the academicians, scientists and research students working in the area of life sciences.
- (b) In total 110 abstracts covering almost all the potential areas of life sciences were selected for oral as well as poster presentation.
- (c) National seminar observed 13 invited talks including one key note lecture.
- (d) The National Seminar observed overwhelming participation from various prestigious central universities, state universities, Research institutions and colleges, which includes, Delhi University, Pune University, Ahmedabad University, University of Allahabad, Rani Durgawati University, Jabalpur, Barkatullah University, Jiwaji University Gwalior, Bundlekhand University, Banasthali University, Sam Higginbottom University of Agriculture Technology and Sciences, Allahabad, Assam Agricultural University, Indian Grassland and Fodder Research Institute (IGFRI) Jhansi, DRDE Gwalior etc.
- (e) The seminar received sponsorship of Rs.10, 000/- from LacZene Biosciences, New Delhi.
- (f) Seminar observed large number of participation and Rs. 72,500/- was collected towards registration fee.



4. Intangible Outcomes

- (a) The National Seminar brochure was widely circulated and advertized using the social media, messenger apps and personal interaction among the various Universities/Institutes/Colleges to give wide publicity of the seminar to attract Academicians/Scientists/Researcher scholars etc.
- (b) Advertisement and distribution of seminar brochure to various Universities/Institutes/Colleges also helped in brand building of AIB, AUMP as Academic-cum-Research Oriented Institution/University and attract the students to pursue their higher studies in AIB, AUMP, Gwalior (MP).
- (c) Organizers of seminar had applied to various Government funding agencies like DBT, ICMR and MPCST, Bhopal for financial assistance, which further strengthen our commitment toward academics and research carried by AIB, AUMP in the perception of these agencies.

During Seminar Outcomes

5. <u>Tangible Outcomes</u>

- (a) Abstract book containing 123 abstracts including abstracts of invited and key note speaker was published along with CD which has contributed significantly to the corpus of literature on the subject and the same can be used for future reference.
- (b) A discussion was held between Director AIB and Rector, Jiwaji Unversity, Gwalior regarding MoU; however the same may be materialized after further meetings.
- (c) Prof (Dr.) GBKS Prasad, Dr. R.K. Singh, Prof. (Dr.) Ishan Patro, Dr. V.K. Sharma and other scientists from various Universities /Institutions have shown their willingness to accommodate the students of AIB for their internship and visit of students to various labs and extended lab facilities to be utilized by the researchers of AIB & AUMP.
- (d) In total thirteen distinguished scientists/academicians of national and international repute were invited as guest speaker. During the seminar various sessions were enriched with informative lectures. All the delegates/participants/research scholars and students were benefited by their deliberations.

6. Intangible Outcomes

- (a) National Seminar played a pivotal role in providing platform to share knowledge, technological advances and innovative ideas by young researchers from various Universities/ institutes/colleges in different technical sessions.
- (b) The presentations given by delegates/participants during the technical session not only sensitized the researchers/participants to involve in research activities but also to buildup innovative ideas for Startup/Entrepreneurship.

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 <u>Detailed Report</u>

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.

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.

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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.

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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 valediactory remark and pointed out the significance of the workshop. On this



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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 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.

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2nd National Workshop at a Glance



Garlanding of Maa Saraswati and Lamp Lighting by dignitaries



Release of Workshop Manual by the Dignitaries on the Dais



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



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







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 Assessement 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





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 dignateries presenting Certificates to a group of participants







OUTCOME REPORT

Of

2nd National Seminar on "Current Trends in Life Sciences"

Organised on 27th February, 2019

By

Amity Institute of Biotechnology Amity University Madhya Pradesh, Gwalior

<u>General</u>

1. Life Sciences offer an integrated approach to deal with all the aspects of biology i.e. Health care, Medical biotechnology, Agriculture and Environment etc., through knowledge generation, innovations and development of cutting edge technology. Increasing knowledge and information play a vital role in life sciences research which is aligned with other disciplines of science. Keeping this in view, Amity Institute of Biotechnology (AIB) conducted 2nd National Seminar on "Current Trends in Life Sciences" on 27th February 2019. The 2nd National seminar provided an interdisciplinary platform for scientific community and budding researchers, academicians to discuss most recent innovations, trends and concerns as well as challenging issues encountered in life sciences. It also focused on to discuss mitigation strategies, technological advancements, exchange of ideas on contemporary issues. The seminar also motivated young students to share their research findings and new ideas to further augment their research by interacting with subject experts. Several distinguished eminent speakers from various reputed academic and research institutions and industry were invited to share their ideas and valuable inputs to the scholars in the field of life sciences.



Objective(s) of the Seminar.

- 2. The National Seminar was organized with following objectives:
- (a) To identify the major thrust areas of modern research in life sciences to understand key issues and challenges.
- (b) To disseminate knowledge and share experiences among leading academic scientists, researchers and research scholars on thrust areas and challenges in life Sciences.
- (c) To provide a forum for research collaboration possibilities among Scientists, Academicians and Research Scholars.
- (d) To provide a forum for discussion on the current challenges and concerns leading to formulate appropriate and effective strategies and mutual exchange of ideas.
- (e) To facilitate young students, research scholars & faculty members of AIB to display their research and connect themselves to scientific community.
- (f) To enhance visibility of AIB and AUMP as a premiere educational institution to bolster its brand value among scientific community.
- (g) The publication of a souvenir of abstracts for future reference.

<u>Pre – Seminar Outcomes:</u>

3. Tangible Outcomes:

- (a) The Seminar received wide publicity among the academicians, scientists research scholars and students working in the areas of life sciences.
- (b) The 2nd National Seminar observed good contribution of papers that addressed theme and topics of the seminar. In total **117** abstracts were selected, covering major areas of life sciences to be presented as **oral (13 Abstracts)** and **poster (104 Abstracts)**.
- (c) The 2nd National Seminar received abstracts for **11 invited** and **one keynote** lecture from distinguished Scientists and Academicians.
- (d) The 2nd National Seminar observed overwhelming participation from participants belonging to various prestigious Central Universities, State Universities, Research Institutions and Collages, which includes, *Banaras Hindu University, Varanasi, University of Delhi, Delhi, Barkatulla University, Bhopal, DRDE Gwalior, Jiwaji University, Gwalior, Bundlekhand University, Jhansi, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya (RSKV) Gwalior, Birla Institute of Medical Research (BIMR), Collage of Life Sciences, Cancer Hospital and Research Institute, Gwalior, SMS Govt. Model Science College, Gwalior, KRG College Gwalior, VISM Gwalior, ITM University Gwalior* etc.
- (e) The 2nd National seminar also received financial assistance of Rs. 15, 000/ from LacZene Biosciences, New Delhi and Rs. 5,000/- from Vijay Scientific Suppliers, Gwalior.
- (f) Seminar observed large number of registrations for participation and **Rs. 54,500**/- was collected towards registration etc.

4. Intangible Outcomes:

- (a) Brochures of the 2nd National Seminar were widely circulated to various Universities/Institutes/Colleges to attract Academicians/ Scientists/ Researcher Scholars etc. Soft copy of the brochure was circulated through E-mails, social media, messenger apps etc.
- (b) Advertisement and distribution of seminar brochure to various Universities/ Institutes/ Colleges also helped in branding of AIB, AUMP as Academic cum Research driven Institution/ University and attract the students to pursue their higher studies in AIB, AUMP, Gwalior.
- (c) Organizers of seminar had applied to various government funding agencies like; DBT, ICMR and MPCST, Bhopal for financial assistance, which further strengthen our commitment towards academics and research carried out in AIB, AUMP in funding agencies.

During Seminar Outcomes

5. Tangible Outcomes.

- (a) An 'Abstract Book' of 2nd National Seminar (NSCTLS 2019) comprising 129 abstracts including 11 invited and one keynote was published along with CD. In total, 13 abstracts were presented as oral and 104 abstracts were presented as poster. The published abstract book has a significant collection of literature on the subject and can used for future reference.
- (b) Prof (Dr.) Shailendra Goel, Department of Botany, Delhi University and other Scientists from various Universities/ Institutions have shown their willingness to accommodate the students of AIB for internship.
- (c) Dr. Anil Kumar Sharma, Vice President, AIMIL Pharmaceuticals Pvt. Ltd., New Delhi has shown his willingness to accommodate the students of AIB for internship.
- (d) During the seminar, various technical sessions were enriched with informative lectures, delivered by distinguished experts. All the delegates/ participants/ research scholars and students were benefited by their deliberations.

6. Intangible Outcomes.

(a) National Seminar played a pivotal role in providing platform to share knowledge, technological advances and innovative ideas by young researchers from various Universities/ Institutes/ Colleges in different technical sessions.



List of Invited Speakers.

S. No.	Name				Title		
KA	Sharma	А	K,	Sharma	Biotechnological Considerations Implied in Ancient Ayurvedic		
	Sanchit, S	Sanchit, Sharma Ikshit, Kohli		nit, Kohli	Sciences – A Review		
	Nitika, Mohd. Junnaid			id			
IT-1	Raghuvir	Sing	h Ton	nar	Cellular homeostatic mechanisms are regulated by Genetics and		
				epigenetics			
IT-2	Syed Imteyaz Alam				1000 GENOME AND BEYOND		
IT-3	Nalini Srivastava				Organophosphate pesticides: Genotoxicity & Carcinogenicity		
IT-4	Mahendra K Gupta and Mir		and Mir	Microbial Bioremediation: An Emerging and Potential			
	Sajad Rabani			Technology for the Removal of Toxic Pollutants from			
				Environment			
IT-5	Shailendra Goel			Genetic and genomic approaches for improvement of Safflower			
					(Carthamus tinctorius L.), an under-utilized promising oilseed		
				crop of India			
IT-6	Rishi Saxena			Impact of environmental factors on Incidence and variability			
				of Fusarium oxysporum f. sp. ciceri isolates from chickpea			
				(Cicer arietinum L.) of Bundelkhand Region			
IT-7	K.K. Sijoria			'Rasaoushadhies' (Herbo mineral formulations) of ayurveda -			
					Roots of modern nanomedicine		
IT-8	U. D. Gupta			Ethics in Animal Experimentation			
IT-9	Rajeev Singh			Radiofrequency Radiation and Environmental Health			
IT-10	Dev Vrat Kamboj			Decentralized Wastewater Treatment Systems			
IT-11	Ram Kumar Dhaked			Label free screening methods in identification of small molecule			
					inhibitors against bacterial toxins.		

Links of Media Coverage

Links:

AMITY UNIVERSITY MADHYA PRADESH GWALIOR

News Links of Media Coverage as on 28.2.2019 AUMP Gwalior

1. AUMP-National Seminar on Current Trends in Life Sciences 2019-Amity

{28.02.2019} <u>https://portal.amity.edu/backoffice/Uploads/media/2215_DainikBhaskar-28.2.2019-</u> AUMPNationalSeminaronCurrentTrendsinLifeSciences2019-Amity.jpg

Dainik Bhaskar – Page-2

2. AUMP-National Seminar on Current Trends in Life Sciences 2019-Amity

{28.02.2019} <u>https://portal.amity.edu/backoffice/Uploads/media/2214_Patrika-28.2.2019-</u> AUMPNationalSeminaronCurrentTrendsinLifeSciences2019-Amity.jpg

Patrika – Page-16

3. AUMP-National Seminar on Current Trends in Life Sciences 2019-Amity

{28.02.2019} <u>https://portal.amity.edu/backoffice/Uploads/media/2217 NavBharat-28.2.2019-</u> AUMPNationalSeminaronCurrentTrendsinLifeSciences2019-Amity.jpg

NavBharat – Page-3

4. AUMP-National Seminar on Current Trends in Life Sciences 2019-Amity

{28.02.2019} <u>https://portal.amity.edu/backoffice/Uploads/media/2218_Bharat-Mat-28.2.2019-AUMP-NationalSeminaronCurrentTrendsinLifeSciences-2019-Amity.jpg</u>

Bharat Mat - Page-3

5. AUMP-Pre Press National Seminar on Current Trends in Life Sciences 2019-Amity

{27.02.2019} <u>https://portal.amity.edu/backoffice/Uploads/media/2216_Patrika-27.2.2019-</u> PrePressAUMPNationalSeminaronCurrentTrendsinLifeSciences2019-Amity.jpg

Patrika – Page-12





भ्वालिबर 27 फररवरी, एमिट इंस्टिट्यूट ऑफ प्रायटिक्नोलॉजे एमिटी युनिवसिटी में कर्सेट ट्रेंड इन लाइफ साइसेव विषय पर द्वितीय राष्ट्रीय संधीनार का आयोजन किया गया। कार्यक्रम को शुरुआत लेफिटनेंट जनरल यीके समं, एवीएसएम (रिटायर्ड) के द्वारा स्वामत भाषण से की गई। तत्पक्षात आई. एम. आई. एल.

कार्मास्यूटिकल्स प्राइवेट लिमिटेड

के उपाध्यक्ष डॉ. अनिल कुमार

शर्मा ने 'निरंतरता में प्राचीन

आयुर्वेदिक विज्ञान एक समीका

में शिहत जैन प्रोद्योगिकी संबंधी

विन्हार विषय पर मुख्य भाषण दिवा।

इस मौके वेपिनार पुस्तिका का विमोचन किसा गया। इस दौरान 14 मोखिक प्रस्तुतिया एवं 100 से ज्यादा पोस्टर प्रस्तुति शोधार्तियो द्वारा प्रस्तुत की गई। कार्यक्रम के मुख्य अतिथि ग्रो. (डॉ.) ओ.भी. उसावाल, पूर्व कुलपति, जीवाबी विश्वविद्यालय,ग्वालिपर रहे। प्रथम तकनोको सत्र को

शुरुआत पोस्टर प्रेसेंटेशन से हुई. जिसकी खण्जशत डॉ. राजेश लिंह तोगर, जिदेशक, जैन प्रौद्योगिकी संस्थान डोन (एकडेमिक्स) एनं रखध्यक्रत डॉ. मनीय कुमार और टॉ. एतिहा हितेदो सह अञ्चापक

चेव गौडोगिए एमिटी ने की। मुख्य तकनीकी सत्र की शुरुआत प्रो. डॉ स्युवीर सिंह तोमर, जैविक आई.आई.एस.इ. आर. विज्ञान, भोपाल एवं प्रोफेसर (डॉ.) रावेश सिंह तोमर, निदेशक, एमिटी जैव प्रौडोनिकी संस्थान तथा डीन एमिटी (एकेंडेमिक्स), विश्वविद्यालय, (संयोजक राष्ट्रीय सेमिगार) को आभ्यक्षमा एवं सहजाध्यक्षता में जी गई, इस अनसर पर प्रथम आमंत्रित काख्यान प्रो. वॉ रधुवीर सिंह तोमर ने सेल्पुलर होमोस्टेटिक मैकेनिजम को जेनेटिक्स और र्णपजेनेटिक्स द्वारा विनियमित' विषय पर दिया । इस सत्र में दूसरा आर्पत्रित व्याख्यान हॉ. सैयद इम्हेबाज आलम, बैज्ञानिक ई, टी.आर.डी.ई., ग्वालियर हारा '1000 जोनोम एंड वियोंड' विषयपर दिया गया। इसके बाद डा. ज्योति जैन, जोवाजी यूगिवर्सिटी, द्वारा गम्य भारत के स्तान केंसर महिलाओं में ची, जार सी. ए. रोगाण् 1 उत्परिण्तेन विश्लेषण' विषय पर मौछिक प्रस्तुरंत दी गई। इसके ग्राथ ही विभिन्न समानांतर सत्रों में आपॉउत बकाओं ने व्याख्यान हिये। समापन संत्र के दौरान मछन अतिथि छाँ. यू.दी. गुण, पूर्व भिदेशक और वैज्ञानिक, नेशनल इंस्टीदबुट फॉर আগস

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नाइकोबेक्टीरियल टिसीज (जाईसीएमआर), आगरा और त्रो चाइरा चांसलर एयूर्यमंगी, ग्री (डा) एम.पी. कशिक ने प्रतिभागियों, खात्रों और संकाय सदस्यों को संबोधित किया. मुरस अतिथि और प्रो-वाइस चॉमलर हारा सर्वश्रेष्ठ मौखिक और सर्वश्रेष्ठ पोस्टर प्रस्तुतियों के लिए पुरस्कार वितरित किया गया, द्वितीय राष्ट्रीय संगोधी के संयोजक प्रो. (डॉ.) अतर.एस. तोपर द्वार समापन टिपण्णी एवं सार प्रस्तुत को गई। नेशनल सेमिनार के अयोजन सचिव हॉ, विकास श्रीवालव ने धन्यबाद ज्ञापन प्रस्तुत किया।



यत्रिका 💵 सिपोर्टर

ग्वालिखर 🔹 मार्केट में इग प्रहुवने के पहले लेख में विधिवत परीक्षण होता है। उसे कई स्टेज से ठोकर युजारना पडता है। सबसे परुदो इन का प्रतिवान स्मॉल सनिम्राझ प्रर फिर्म जिम एनिमल्स पर उसके एक्सन, रिएक्शन देखें जाते हैं। इसके बाद ही कही उसे मार्केट में उतारा जाता है। इर संस्थान सीपीसीएण्डीए से अनुशंसा के बाद ही प्ररीक्षण वहर्ष कर सकते हैं। यह बात एल्सपर्ड के रूप में उपस्थित डॉ. उमेश क्ता ने गेशतल सेनिनार के दौरान कही। वह सीमिनार एमिर्ट युनिवर्सिटी में 'काँट ट्रेंड इन लाइफ सहसेज' विषय पर आयोजित निष्णा गया था। कार्यक्रम क्ये शुरुआत लेफिटनेंट जनरल वीके शर्मा, एवीएसएम के स्वागत भाषण से की गई।



सेमिनार मे सैमिनार में आइएमआइएल फ मस्स्पुटिकरूर प्राइवेट लिमिटेश के उपाच्यक्ष डॉ. अनिल युमार रामां ने 'निरंतरता में प्राचीन आपुर्वेदिक विज्ञान एक समीक्षा में निटित जैब प्रौद्योगिकी संबंधी विस्तार' लिषय पर स्पीच दी। इसके व्यव मेच पर उपस्थित अतिथियों द्वारा

पुरितबच का विमोचन । सेमिनार पुस्तिका का विमोचन किया गया। फ इस दौरान 14 मोखिक प्रस्तुतियां एवं 100 से ज्यादा पोस्टर प्रस्तुति दी गई। कार्यक्रम में मुख्य अतिथि प्रो. ओपी अग्रवाल, पूर्व वुल्लनविष् जोवाजी यूनिवसिंटी भ्वालियर रहे। इस अजसर पर एमिटी के प्रो. चाइस चांरालर प्रो. एमगी कोंशिक, प्रो. राजेश सिंह तोमर, प्रो. आरएस तोगर उपरिश्वत रहे।

City Plus बीमारियों में कारगर है एपिजेनेटिक्स पर चल रही है रिसर्चः तोमर

GWALIOR, THURSDAY, 28/02/2019 . 02

ारे भारकर



रोमिनार में पुरित्यका का विमोचन करते अतिथि।

ञ्चातियर कई प्रकार की बीमारियों में एपिजेनेटिवस कारगर है। वर्तमान में इस पर कई एंगल से नेसची चल सदी है और आने वाले रूमय में इसका अधिक से अधिक फायदा लोगों को बिलेगा। यह बात भोपाल से आए हों, आरएस तोमर ने फड़ी। वह बुधवार को एमिटी पुनिवसिंटी में करेंट ट्रेंड इन लाइक साईसेज विषय पर आयोजित राष्ट्रीय सेमिनार में योता रहे थे। इस मौके पर मुख्य अगिषि जेपू के छो. ओपी अग्रवाल, एमिटी यूनिवर्सिटी के कुलपति लीके रूमां, प्रो लाइम चांसलर ठो. एमपी चौशिक, प्रो. राजेम सिंह तोमर सहित देशभर से आए प्रतिभागी मौजूद रहे।

Event at a Glance





Lighting of the lamp by the Dignitaries

Hon'ble Vice Chancellor, Lt. Gen. V.K. Sharma, AVSM (Retd.) delivering the Opening remarks in Inaugural Session.



Prof.(Dr.) O.P. Agarwal, Former Vice Chancellor, Jiwaji University, Gwalior, Chief Guest of the Seminar delivering his address in Inaugural Session.

Dr. Anil Kumar Sharma, Vice President, AIMIL Pharmaceuticals India Ltd. New Delhi, Guest of Honour and Keynote Speaker, delivering his talk.



Dr. Pratistha Dwivedi, Assistant Professor, AIB comparing the Inaugural Session.

Release of Abstract Book by the dignitaries



Dignitaries and Participants during the Seminar.

Prof.(Dr.) Raguvir Singh Tomar, IISER Bhopal delivering his Invited Talk during technical session.



Dr. U.D. Gupta and Prof.(Dr.) Rishi Saxena, Judges of the poster session, assessing the posters during presentation. Dr. D. V. Kamboj, Scientist-'G', Biotechnology division, Defence R & D Establishment, Gwalior delivering his 11 Invited Talk during technical session.





Prof. (Dr.) Mahendra Gupta, Jiwaji University, Gwalior delivering his Invited Talk during technical session.

Dr. SI Alam, Scientist- 'E", Biotechnology division, Defence R & D Establishment, Gwalior delivering his Invited Talk during technical session.



Dr. U.D. Gupta, Former Director and Scientist, ICMR-National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Agra, Chief Guest in Valedictory Session addressing the participants.

Pro Vice Chancellor, Prof. (Dr.) M.P. Kaushik, addressing the participants in Valedictory Session.



Prof.(Dr.) Rajesh Singh Tomar, Director AIB & Dean (Academics), AU MP, Gwalior and Convener of the Seminar, delivering the concluding remarks of Seminar.

Dr. Kajal S. Rathore from KRG College, Gwalior, receiving the award of Best Oral Presentation.



Ms. Tooba Mazhar, AIB, AUMP, Gwalior, receiving the award of Best Poster Presentation. Dr. Vikas Shrivastava, Associate Professor AIB, AUMP, Gwalior and Organising Secretary of the Seminar proposing the Vote of Thanks.



2ndNational Conference on Recent Advances in Biotechnology and Nanobiotechnology (BIONANO-2020) on <u>25thFebruary 2020</u>

Amity Institute of Biotechnology, Amity University, Gwalior organised '2ndNational Conference on Recent Advances in Biotechnology and Nanobiotechnology (BIONANO-2020). National Conference was inaugurated by lamp lighting ceremony followed by Saraswati vandana in the presence of Chief Guest Prof. (Dr.) P.S. Bisen, Former Vice Chancellor, Jiwaji University, Gwalior, Guest of honor Prof. (Dr.). I.K. Patro, Vice Chancellor, Ravenshaw University, Cuttack along with Hon'ble Vice Chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.), Pro-Vice Chancellor AUMP, Prof. (Dr.) M.P. Kaushik, Prof. (Dr.) R.S. Tomar (Convener of the conference) and other dignitaries.

The inaugural session started with the welcome address by Hon'ble Vice Chancellor, AUMP, Lt. Gen. V. K. Sharma, AVSM (Retd.). During inaugural session, the Souvenir of the 2ndnational conference and flayer of upcoming book entitled 'Nanobiotechnology Concepts and Application in Health, Agriculture and Environment' were released by dignitaries. The keynote address was delivered by key note speaker and Guest of honor Prof. (Dr.) I.K. Patro, Vice Chancellor, Ravenshaw University, Cuttack on the topic '*Women and Child Health: A Biotechnological Perspective*'.



Hon'ble Vice Chancellor AUMP, Lt. Gen. V. K. Sharma, AVSM (Retd.) delivering opening remark in Inaugral Session.



There were two technical sessions on different themes of the conference, covering the wide areas of biotechnology and nanobiotechnology. The technical sessions were enriched with lectures of invited speakers along with oral presentations by participants. This includes one keynote address, 09 invited talks and oral presentations. During the conference 120 research and review papers covering the wide areas of biotechnology and nanobiotechnology were presented in the form of posters by participants from different Universities/Institutes and Researchers from Bundelkhand University Jhansi, Jiwaji colleges. University, Gwalior, Rajmate Vijayaraje Krishi VishwaVidyalaya, Govt. KRG PG Autonomous College, Gwalior, CIMAP, Lucknow, IISER, Bhopal, G.R. Medical college, Gwalior, Govt. SMS Model Science College, Shri Krishna University, Chhatarpur, Tropolite food Pvt. Ltd., Gwalior, CSIR-NBRI, Lucknow, ITM University, VISM, Govt. Girls College and Tropical Forest Research Institute, Jabalpur participated etc., in the conference.

First Technical session of the conference on 'Biotechnology and Nanobiotechnology' begins with the invited talk of Prof.(Dr.) Raghuvir Singh Tomar, Department of Biological Sciences, IISER Bhopal on the topic '*Epigenetic signaling mechanisms from basics to Applications*'. The session was chaired by Prof. (Dr.) R.S. Tomar (Convener of the conference) and Co-chaired by Prof. (Dr.) Vikas Shrivastava AIB,AUMP. The second invited lecture in this session was delivered by Prof. (Dr.) S.P. Bajpai, former Dean, H.S. Gaur University, Sagar and Ex-Dean Research, Amity University Madhya Pradesh, Gwalior on the topic'*Environmental challenges in the era of Nanotechnology*' followed by next invited talk delivered by Dr. Jyoti Priyadarshini Shrivastava, G.R. Medical College on the topic '*Applications of nanotechnology*' *in Health Care*'. This technical session carried oral presentations by Dr. Pratishtha Dwivedi, Assistant Professor, Govt. Nehru College, Sabalgarh on the topic 'Reverse vaccinology for elucidation and validation of vaccine candidate in *Clostridium perfringens*'.

The second technical session on 'Biotechnology' was chaired by Prof. (Dr.) Mahendra Gupta, Jiwaji University, Gwalior and Co-chaired by Dr. Raghvendra Mishra, Associate Prof., AIB, AUMP. Prof. (Dr.) Mahendra Gupta delivered an invited talk on the topic '*Nanobiotechnology: An emergent technology for the sustainable management of contaminated sites*'. Afterwards, another invited talk was delivered by Dr. Mithilesh Jaisawal, Biotechnology Lab, Tropolite Food Pvt. Ltd., Gwalior on the topic '*Probiotics, Prebiotic and Synbiotic: An important tool for Human and animal health benefits*'. This session includes one oral presentation by Dr. Sharmistha Banerjee on the topic '*Enhancement of Anti-cancer Activity of Microbial Metabolites secreted from Bacillus megaterium by Media Optimisation*'.During this session another invited talk was delivered by Dr. Neha Sharma, Associate Professor, Department of Microbiology, Shri Krishna University, Chattarpur, M.P. on the topic '*Need to study orthopharangeal microflora to prevent septicemia and Gangarin in the victims of snake bite: challenges and solutions for snakebitemitigation*'.

During posters session, posters were displayed by the participants and they were evaluated. The poster session was chaired by Dr. Raghvendra Saxena, Associate Professor, AIB, AUMP along with co-chairpersons Dr. Neha Sharma and Dr. Manish Kumar, Assistant Prof. AIB.



During the valedictory session Pro-Vice Chancellor AUMP, Prof. (Dr.) M.P. Kaushik addressed the participants, students and faculty members. The mementos and certificates for best oral and best poster presentations were distributed by Pro-Vice Chancellor AUMP and Convener of the conference Prof.(Dr.) R.S. Tomar. The best oral presentation award was grabbed by Dr. Pratistha Dwivedi, Assistant Professor, Sabalgarrh. Whereas, the poster presentation winners were Prateek Neema (MITS, Gwalior) for the First prize, Anamika (AIB, AUMP) for Second prize and Megha Sharma (Dr. B. Lal Institute, Jaipur) for third prize. The concluding remark of the conference was given by Convener of the 2ndNational Conference Prof. (Dr.) R.S. Tomar. In the last, vote of thanks was proposed by Prof.(Dr.) Vikas Shrivastava, Organising Secretary, 2ndNational conference (BIONANO 2020).



Prof. P.S. Bisen, Former Vice Chancellor, Jiwaji University, Gwalior, Chief Guest of the conference addressing during inaugural session.





Prof. (Dr). I.K. Patro,Vice Chancellor, Ravenshaw University, Cuttack, Guest of honour and keynote speaker, delivering Key note address.





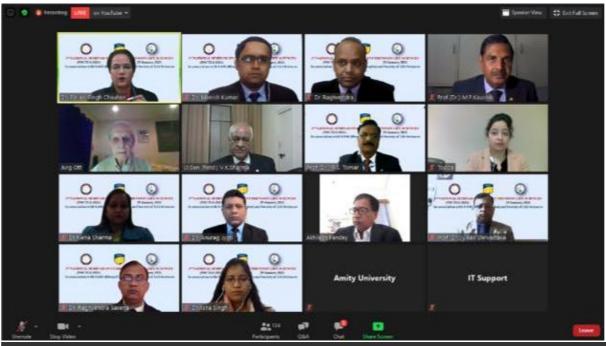
Release of flayer of upcoming book entitled "Nanobiotechnology: Concepts and Application in Health, Agriculture and Environment' by dignitaries on the dais.



Release of Souvenir of the 2nd National conference (BIONANO-2020) by dignitaries on the dais.



Amity Institute of Biotechnology organizes 3rd National Seminar on "Current Trends in Life Sciences" on 29th January 2021



Inaugural session of the national seminar

Amity Institute of Biotechnology organizes 3rd National Seminar on "Current Trends in Life Sciences" on 29th January 2021

Amity Institute of Biotechnology, Amity University, Gwalior organized '3rd National Seminar on Current Trends in Life Sciences-2021' on 29th Jan. 2021 in virtual mode. National seminar was inaugurated by lamp lighting ceremony followed by Saraswati Vandana in the presence of chief guest Prof. (Dr.) A. K. Pandey, Vice Chancellor, Vikram University, along with guest of honor Prof. (Dr.) Jurg Ott, Professor Emeritus, The Rockefeller University, New York, USA and Hon'ble Vice Chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.), Prof. (Dr.) R.S. Tomar (Convener of the seminar) and other dignitaries.

The programme started with the welcome address by Hon'ble Vice Chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.) followed by address by chief guest Prof. (Dr.) A. K. Pandey. Afterwards, abstract book of the national seminar was released in virtual mode by dignitaries present online. In the continuation, keynote address



on the topic 'Shared Genomic Segment (SGS) analysis for Disease Gene Mapping' was delivered by guest of honour Prof. (Dr.) Jurg Ott, Professor Emeritus.

Technical sessions were started online on google meet platform and technical session-I, Plant Sciences & Alternative Medicine was started with the invited talk of Prof. (Dr.) R M Agarwal, Former Professor & Head, S.O.S. in Botany, Jiwaji University, Gwalior on the topic 'Role of Potassium in Alleviating Stress-Induced Changes in Plants'. This session was chaired and co-chaired by Prof.(Dr.) S.P. Bajpai, Ex-Dean (Research), Amity University Madhya Pradesh, Former Professor & Head, H.S. Gaur University, Sagar and Prof. (Dr.) Rajesh Singh Tomar, Director, Amity Institute of Biotechnology, Dean (Life Sciences), Amity University, Gwalior respectively. Session included two more invited talks by Dr. Siddharth Tiwari, Scientist-E, National Agri-Food Biotechnology Institute, Mohali and Dr. Lavesh Kumar Chourasia on the topics 'Development of nutritional rich banana using transgenic and genome editing approaches' and 'Studies on different methods of nutrient management and mulching practices on productivity of Tomato (lycopersicon esculemtum) Mill' respectively. In this technical session, there were two oral presentations.

Technical session-II, Biotechnology was started with the invited talk of Prof. (Dr.) I. K. Patro, Ex-Vice Chancellor, Ravenshaw University, Cuttack on the topic 'Post Covid Management'. This session was chaired and co-chaired by Prof. (Dr.) I. K. Patro, and Prof. (Dr.) Rajesh Singh Tomar, Director, Amity Institute of Biotechnology, Dean (Life Sciences), Amity University, Gwalior respectively.

Session included one more invited talks by Prof.(Dr.) Puneet Gandhi, on the topics 'New Innovations in Biomedical Research-What it means for Scientists & the common man'. In this technical session, there were 6 oral presentations.

Technical session-III, 'Microbiology and Microbial Technology' was started with the invited talk of Prof. (Dr.) Mahendra Gupta, Jiwaji University, Gwalior on the topic 'Nanotechnology: A Promising technology in Sustainable Agriculture'. This session was chaired and co-chaired by Prof. (Dr.) Mahendra Gupta, Jiwaji University and Dr. Neha Sharma, Amity Institute of Biotechnology, Gwalior respectively. Session included one more invited talks by Prof. (Dr.) A.M. Deshmukh, on the topics 'Microbial Solubilization of Metals from Electronic waste (E- waste'. In the this technical session, there were 4 oral presentations.

Technical session-IV, 'Animal Sciences' was started with the invited talk of Prof. (Dr.) U.D. Gupta, JALMA, Agra on the topic 'Animal Models of Tuberculosis'. This session was chaired and co-chaired by Prof. (Dr.) U.D. Gupta and Prof. (Dr.) Rajesh Singh Tomar, Director, Amity Institute of Biotechnology, Dean (Life Sciences), Amity University, respectively. Session included three more invited talks by Prof. (Dr.) Bechan Sharma, University of Allahabad, on the topics 'Challenges and opportunities to develop antiCoVID19 drugs', by Dr. Kusum Singh, Department of Zoology, Bundelkhand University Jhansi on the topic 'Vaccine production need



of today's world' and by Dr. Bushra Malik, Malwa Group of Colleges, Gwalior, MP on the topic Stress Management Diet During Corona phobia.

Parallel session-I for oral presentations was started with the invited talk of Prof. (Dr.) I. K. Pai, Former Professor and Head, Department of Zoology and Director, UGC-HRDC and Centre Coordinator, NRC-MHRD (Mar. Sci.), Goa University, Goa. This session was chaired and co-chaired by Prof. (Dr.) I. K. Pai and Dr. Anurag Jyoti, Assistant Professor, Amity Institute of Biotechnology, Amity University Madhya Pradesh respectively. Session included one more invited talk by Dr. Sushmita Shrivastava, Govt. P. G. College, Guna (M.P.), on the topics 'Ethnoveterinary practices for dermal disorders among cattle in Gwalior (M.P.). Afterwards, 22 oral presentations were conducted in this parallel session.

Parallel session-II for oral presentations was started with the invited talk of Prof. (Dr.) Madhulika Bhagat, School of Biotechnology, University of Jammu, Jammu, on the topic 'Nanofertilizers for sustainable agriculture: an influence of Zinc oxide nanoparticles'. This session was chaired and co-chaired by Prof. (Dr.) Madhulika Bhagat and Prof. (Dr.) Vikas Shrivastava, Amity Institute of Biotechnology, Amity University Madhya Pradesh respectively. Session included one more invited talk by Dr. Mohd Salim Reshi, Baba Ghulam Shah Badshah University, Rajouri (J&K), on the topics 'Nanotherapeutics for Acetaminophen Induced Hepatotoxicity in Rats'. Afterwards, 19 oral presentations were conducted in this parallel session.

Parallel session-III for oral presentations was started with the invited talk of Prof. (Dr.) B.K. Sarma, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, on the topic 'Role of microbes in sustaining food security'. This session was chaired and co-chaired by Prof. (Dr.) B.K. Sarma and Dr. Raghvendra Kumar Mishra, Associate Professor, Amity Institute of Biotechnology, Amity University Madhya Pradesh respectively. Session included two more invited talks by Dr. Mithilesh Jaiswal, Biotechnology Lab, Research and Development Division, Tropilite Food Pvt. Ltd, Gwalior, on the topics 'Probiotics: Good Microbes for Health Benefits and Business opportunity' and by Dr. Pratistha Dwivedi, Govt. Nehru College, Sabalgarh, Morena on 'Reverse Vaccinology: Bridging The Gaps InVaccine Design and Development'. Afterwards, 10 oral presentations were conducted in this parallel session.

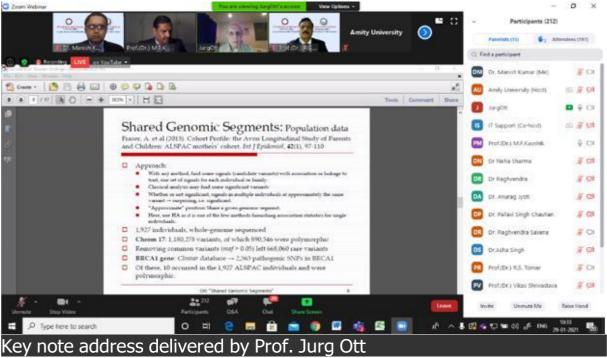
There were total 4 technical sessions, 3 parallel sessions for the oral presentations and invited talk along with total 4 poster presentation sessions. The presentation and evaluation was done on the basis of online presentation performance in both oral and poster presentations. There were total 19 invited talks, 1 key note address along with 62 oral and 115 posters for the presentations.

During the valedictory session Pro-Vice Chancellor AUMP, Prof. (Dr.) M.P. Kaushik addressed participants, students and faculty members. Afterwords, chief guest of the session Prof (Dr.) Niraj Kumar, Secretary, The National Academy of Sciences, India (NASI), Prayagrai (U.P.), present along with other dignitaries addressed

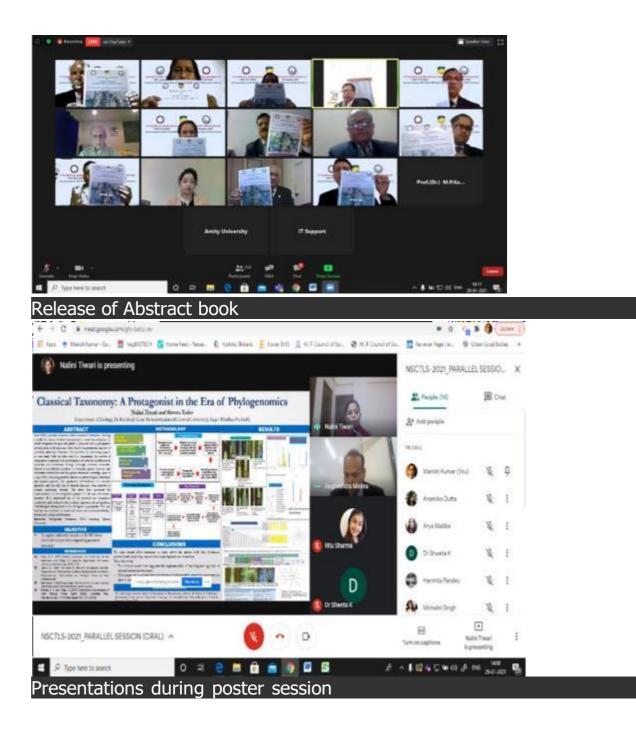
India (NASI), Prayagraj, (U.P.), present along with other dignitaries addressed audiences online with his valuable words. Prizes for best oral and best poster



presentations along with 'Young Scientist Awards' were announced by the dignitaries. First 'Young Scientist Award' in oral presentation section was awarded to Devasena Umai R, Vels Institute of Science, Technology and Advanced Studies, Chennai and second 'Young Scientist Award' in poster presentation section was awarded to Usma Manzoor, Jaipur National University, Jaipur. Best poster presentation award was given to Sankalp Misra, CSIR-NBRI whereas Shasta Kalra, Department of Entomology, Punjab Agricultural University, Ludhiana has received second prize in this category. Best oral presentation award was given to Vikas Sharma, Department of Molecular biology and Genetic Engineering, Lovely Professional University and second prize was grabbed by Indranil Singh, The Lautenberg Center for Immunology and Cancer Research, Institute of Medical Research, Israel. The concluding remark of the National seminar was proposed by convener of the 3rd National Seminar Prof. (Dr.) R.S. Tomar. In the last, vote of thanks was proposed by Dr. Vikas Shrivastava, Organising Secretary, 3rd National seminar.









2nd INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN BIOTECHNOLOGY AND NANOBIOTECHNOLOGY (INT-BIONANO-2022) 10-11 February 2022 DAY-1

Amity Institute of Biotechnology, Amity University, Gwalior organized two days '2nd International Conference on Recent Advances In Biotechnology and Nanobiotechnology (Int-BIONANO-2020) on online platform. On the first day, conference was inaugurated online by lamp lighting ceremony followed by Saraswati vandana in the presence of chief guest Prof. (Dr.) C.P. Joshi, Professor and Chair, Department of Biological Science, Michigan Technological University, USA, guest of honor addressed by Prof. (Dr.) Jurg Ott Professor Emeritus and Head of Lab, Rockefeller University New York, USA along with Hon'ble Vice Chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.), Pro-Vice Chancellor AUMP, Prof. (Dr.) M.P. Kaushik, Prof. (Dr.) R.S. Tomar (Convener of the International conference) and other dignitaries.

The inaugural session started with the welcome address by Hon'ble Vice Chancellor Lt. Gen. V. K. Sharma, AVSM (Retd.). The abstract book of the 2nd International conference was released by dignitaries, followed by keynote address by the chief guest Prof. (Dr.) C.P. Joshi, Professor and Chair, Department of Biological Science, Michigan Technological University, USA on the topic 'Plant cell wall biotechnology for improving bioenergy production'.



Prof. (Dr.) M.P. Kaushik, Pro-VC, AUMP giving his opening remarks.

On the first day, there were three technical sessions on different themes of the conference and fifteen speakers from reputed International and national academic institutes delivered their talks. This includes one keynote address, 14 invited talks.

Researchers from ICAR-NBAIM Mau, Prathyusha Engineering College, Thiruvallur, GLA University Mathura, Indian Statistical Institute, Kolkata RKDF University, Bhopal,



Bundelkhand University Jhansi, Jiwaji University, Gwalior, Rajmate Vijayaraje Krishi VishwaVidyalaya, Govt. KRG PG Autonomous College, Gwalior, CIMAP, Lucknow, IISER, Bhopal, G.R. Medical college, Gwalior, Govt. SMS Model Science College, Shri Krishna University, Chhatarpur, Tropolite food Pvt. Ltd., Gwalior, CSIR-NBRI, Lucknow, ITM University, VISM, Govt. Girls College, VIT University Bhopal, Bharathidasan University, Tamil Nadu and Tropical Forest Research Institute, Jabalpur participated in the conference.

After inaugural session, first Technical session of the conference on 'Molecular Biology and Plant Biotechnology' started with the invited talk of Prof. (Dr.) Rajendra Prasad, Amity Institute of Biotechnology, Amity University Haryana on the topic '*ONE GENE, ONE PROTEIN AND ONE LIFE*'. The session was chaired by Prof.(Dr.) R.S. Tomar and co-chaired by Prof. (Dr.) Rajendra Prasad. The second invited lecture in this session was delivered by Dr. Manoj Prasad, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi on the topic 'Sw5a: The Trojan Horse against ToLCNDV infection in tomato' followed by next invited talk by Dr. Shailendra Goel, Department of Botany, University of Delhi, on the topic '*An integrated approach using genomics and breeding for a traditional Indian oil seed crop: Safflower*' and Dr. Vikas Jain, Microbiology and Molecular Biology Laboratory, Department of Biological Sciences, Indian Institute of Science Education and Research Bhopal on the topic 'Deciphering the physiological relevance and molecular properties of Mycobacteriophage D29 Holin'.

After lunch break, second technical session on 'Nanotechnology and Biosensor' started which was chaired by Dr. Rajiv Prakash, School of Materials Science and Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi and co-chaired by Dr. Vassilis Fotopoulos Department of Agricultural Sciences, Biotechnology & Food Science, Cyprus University of Technology, Lemesos, Cyprus. Dr. Rajiv Prakash delivered an invited talk on the topic 'New generation bio-sensors based on nano materials functionalised transducers'. Afterwards, another invited talk was delivered by Dr. Vassilis Fotopoulos on the topic 'Potential use of nanomaterials towards a sustainable agriculture' followed by a talk by Prof. (Dr.) V.P. Sharma CSIR-Indian Institute of Toxicology Research, Lucknow on the topic 'Toxicology: Recent Advances and Strategies for Sustainability & Regulatory Aspects'. In this continuation another invited talk was delivered by Prof. (Dr.) Aparna Khanna Amity Institute of Biotechnology, Amity University Mumbai on the topic Design of Novel Nanomaterials for efficient Stem Cell Tracking followed by Dr. Seema Nara, Department of Biotechnology, Motilal Nehru National Institute of Technology Allahabad, Uttar Pradesh, India on the Topic: Aptamer as detection agents in *in-vitro* diagnostics. The last invited ta;k of this session was delivered by Dr. Shivendu RanjanDepartment of Biotechnology, CSJM University, Kanpur, Uttar Pradesh on the topic 'Electrospinning and Electrospraying for Active compound Encapsulation'. Session was ended with the panel discussion between resource persons and participants.

Afterwards another technical session on Applied Biotechnology was started which was chaired by Prof. (Dr.) Rajesh Tiwari, Amity University Lucknow and co-chaired by Dr. Alok Patel Biochemical Process Engineering, Division of Chemical, Engineering, Department of Civil,



Environmental and Natural Resources Engineering, Luleå University of Technology, Sweden. Prof. (Dr.) Rajesh Tiwari delivered an invited talk on the topic 'Harnessing Science, Technology and Innovation for societal Benefits'. After this lecture, Dr. Alok Patel delivered a lecture on the topic 'Bioprocessing of volatile fatty acids as building blocks for lipogenesis in oleagenic microbes for the production of nutraceuticals (DHA and Squalene) to reduce dependency on animal sources' followed by another invited lecture by Dr. Jyoti Priyadarshini, Gajra Raja Medical College, Gwalior on the topic 'Applications of Nanotechnolgy in Health Care'. The technical session of first day was ended with the invited talke delivered by Dr. Sonia Johri, Department of Life Sciences, ITM University, Gwalior on the topic 'Therapeutic approach of Watermelon (Citrullus lanatus) rind: Biosynthesis and Characterization of selenium nanoparticles

On day -1 there were total 5 parallel session for the oral presentations of participants from India and abroad. Parallel sessions were conducted online on google meet platform with distinguished scientists and researchers as chairperson and co-chairperson in different sessions in which total 105 presentations were conducted. **Day 2**

On second day of international conference, Technical session-4 of the conference on 'Omics' started with the invited talk of Prof. (Dr.) Raghuvir Singh Tomar, Department of Biological Sciences, Indian Institute of Science Education and Research Bhopal on the topic 'Dissecting the role of epigenetics in regulation of cellular homeostatic pathways under stress conditions'. The session was chaired by Prof. (Dr.) Raghuvir Singh Tomar and co-chaired by Dr. Gitanjali Yadav, Computational Biology Laboratory, National Institute of Plant Genome Research (NIPGR), New Delhi. The second invited lecture in this session was delivered by Dr. Gitanjali Yadav on the topic 'Spatio-Temporal Gene Regulatory Networks of Algal Biophysical CCM For Food Security' followed by invited talk of Dr. Sameer Srivastava, Department of Biotechnology, Motilal Nehru National Institute of Technology Allahabad, Uttar Pradesh on the topic 'Transcriptomic profiling of early onset CRCs'. The session was concluded after panel discussion between presenters and participants.

Another technical session-5 on 'Animal and Medical Biotechnology' was started with the invited talk of Dr. Ram Kumar Mishra, Department of Biological Sciences, Indian Institute of Science Education and Research Bhopal on the topic 'Getting insights on cancer: Ex vivo laboratory approaches to delineate the menace'. The session was chaired by Dr. Ram Kumar Mishra and co-chaired by Dr. Pankaj Suman, National Institute of Animal Biotechnology, Hyderabad, Telangana. Second invited talk was delivered by Dr. Pankaj Suman on the topic 'Field applicable aptasensor for detection of residual antibiotics in animal food products' followed by another invited talk by Dr. Gopal Jee Gopal, C.G.Bhakta Institute of Biotechnology, Uka tarsadia University, Bardoli, Gujrat, on the topic 'Role of Recombinant DNA Technology in the Management of Disease'.

After this technical session-6 on 'Toxicology' was started with the invited talk of Prof Nalini Srivastava, School of Studies in Biochemistry, Jiwaji University, Gwalior on the topic 'Organophosphate pesticides: From Neurotoxicity to Cell death'. The session was



chaired by Prof Nalini Srivastava and co-chaired by myself. Session included one more invited talk by Prof. (Dr.) Ravi Kant Singh, Amity Institute of Biotechnology, Amity University Chhattisgarh, Raipur on the topic 'DNA damage as a Biomarker for Exposure: The Comet Assay Perspective'.

After lunch, technical session-7 on 'Industrial and Microbial Technology' was started with the invited talk by Dr. Mithilesh Jaiswal, Biotechnology Lab, Research and Development Division, Tropilite Food Pvt. Ltd, Gwalior on the topic 'Role of Probiotics microbes in Health benefits and Carrier build up'. The session was chaired by Dr. Mithilesh Jaiswal and co-chaired by Dr. Brajesh Barse, International Centre for Genetic Engineering and Biotechnology, New Delhi. Further, Dr. Brajesh Barse delivered a talk on the topic 'Second generation biofuel: India perspective on lab to market research program'. In this continuation, two more invited talks were delivered by Dr. Pankaj Rai, Department of Biotechnology, Faculty of Biosciences, Invertis University, Bareilly followed by Dr. Abhishek Mathur, Prathista Industries Limited, Telangana State, India. Dr. Rai deliberated on the topic 'Substrate Pretreatment Technologies for Biohydrogen Production from Biomass' and Dr. Abhishek Mathur talked about 'Biological Nanoparticles based on Microbial Metabolites: effective Agents for Sustainable Agriculture in terms of growth promotion and Inseciticidal/Pesticidal Activities' as a last invited talk of this technical session and conference.

On day -2 there were total 9 parallel sessions for the oral presentations of participants from India and abroad. Parallel sessions were conducted online on google meet platform with distinguished scientists and researchers as chairperson and co-chairperson in different sessions in which total 212 presentations were conducted.

Valedictory session was graced by chief guest Prof. (Dr.) Sangeeta Shukla, Vice Chancellor, Meerut University. During this session Vice Chancellor AUMP Lt. J. V.K.Sharma (AVSM Retd) was present along with Pro-Vice Chancellor AUMP Prof. (Dr.) M.P. Kaushik participants, Convener of the conference Prof.(Dr.) R.S. Tomar. Chief guest addressed and described the necessity of such type of conferences for faculty and students perspective. Afterwards, VC, AUMP addressed faculty members, participants and students. Prizes for three best oral presentations were along with 10 consolation prizes out of all parallel sessions were announced during this session.

Prize for three best oral presentations were grabbed by Deepali Rawat from National Institute of Animal Biotechnology, Hyderabad, Telangana; Rajshree Dutta from Indian Statistical Institute Kolkata and Meenakshi Dubey from Delhi Technological University, New Delhi. The concluding remark of the conference was proposed by Convener of the 2ndInternational Conference Prof. (Dr.) R.S. Tomar. In the last, vote of thanks was proposed by Dr. Vikas Shrivastava, Organising Secretary, Int-BIONANO-2022.

Event at a Glance





Key Note Speaker Prof. (Dr.) C.P. Joshi giving keynote lecture in inaugural Session.



Prof. (Dr.) Jurg Ott addressing the inaugural Session.

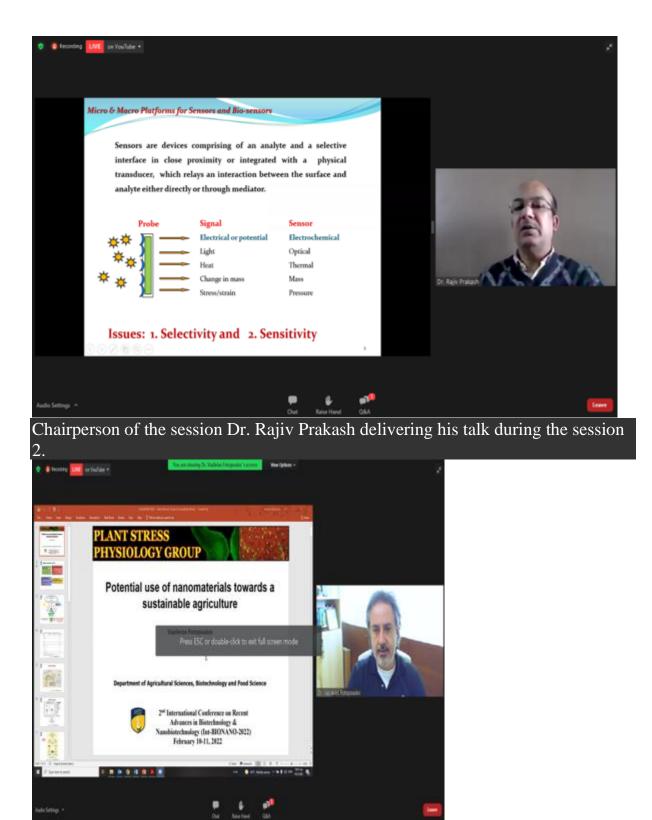






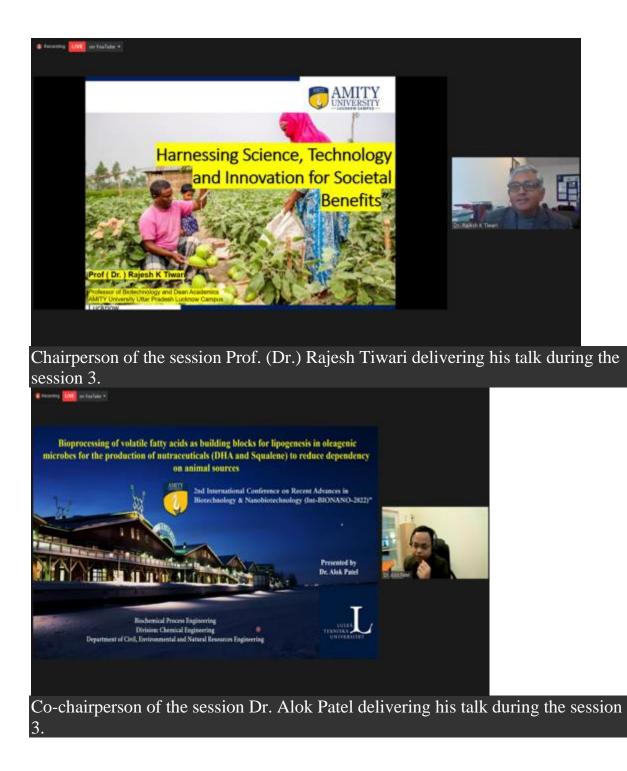
Chairperson of the session Prof. (Dr.) Rajendra Prasad delivering his talk during the session 1.



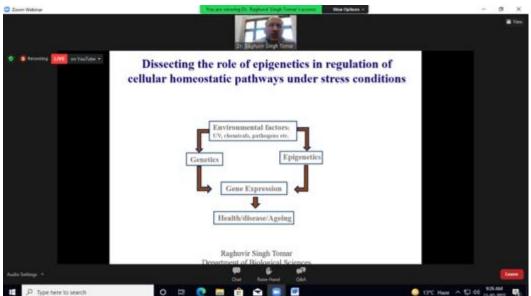


Co-chairperson of the session Dr. Vassilis Fotopoulos delivering his talk during the session 2.









Chairperson of the session Prof. (Dr.) Raghuvir Singh Tomar delivering his talk during the session 4

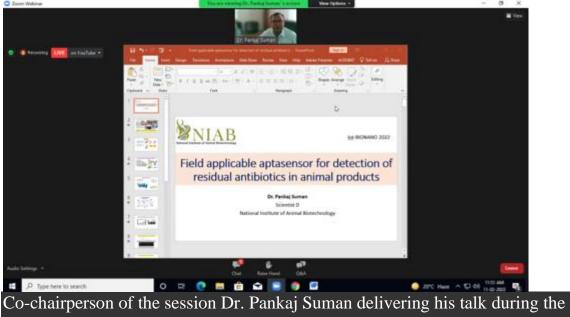


Co-chairperson of the session Dr. Gitanjali Yadav delivering her talk during the session 4.



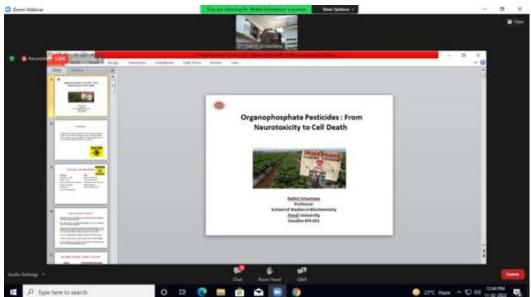


session 5.

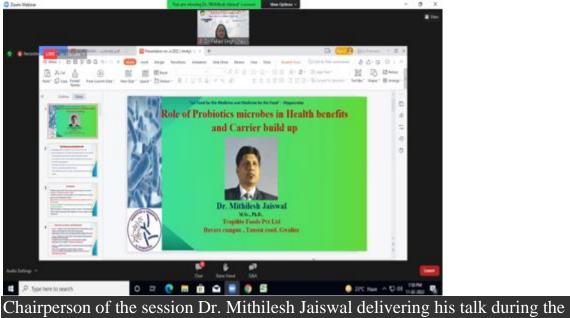


session 5.





Chairperson of the session Prof. (Dr.) Nalini Srivastava delivering her talk during the session 6



Chairperson of the session Dr. Mithilesh Jaiswal delivering his talk during the session 7.





Chairperson of the session Dr. Brajesh Barse delivering his talk during the session 7.



Valedictory session: Chief Guest Prof. (Dr.) Sangeeta Shukla, VC CCU Meerut.



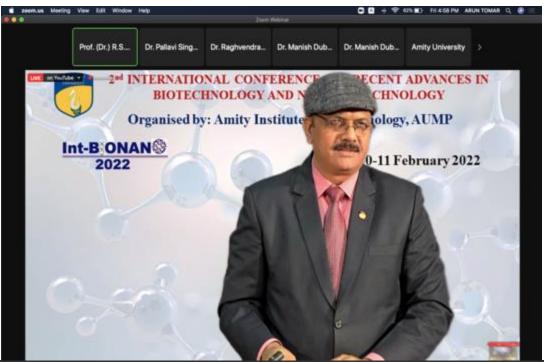


Lt. Gen. V.K. Sharma, VC AUMP addressing the valedictory session.



Prize distribution by the Dignitaries





Prof. (Dr.) R.S. Tomar, Convener 2nd Int-BIONANO 2022 giving concluding remark



Prof. (Dr.) Vikas Shrivastava giving vote of thanks.

