

# DEPARTMENT OF BIOTECHNOLOGY

The Department of Biotechnology was established in 1997 with a vision to be recognized as a Department of International repute with a strong interdisciplinary research and teaching base in Plant and Animal Biotechnology with active collaboration of industries and health-care institutions. The department offers three programmes of study with an excellent and updated curriculum as a blend of biological science and applied research. First, a four year' under-graduate course leading to B.Sc. Honors in Biotechnology as per New Education Policy, 2020 that provides a surfeit of knowledge and opportunities. Second, a two-year post-graduate course leading to M.Sc. in Biotechnology that opens multiple doctoral research and work opportunities across the world. Third, doctoral research leading to Ph.D. degree in the well-equipped labs with the experienced research supervisors. The Department offers opportunity for post-doctoral research. The faculty in the department is enthusiastic and dynamic with the research experience in the labs of international repute both in India and abroad. They are the excellent and experienced teachers. Their research is well recognized internationally. The students of Biotechnology have a good rate of success in NET-CSIR/UGC, DBT-JRF, ICMR-JRF and RA, etc. They are selected in reputed institutions for Ph.D. besides their placements abroad.

▶ The department has inter-institutional collaboration with ICGEB (New Delhi), AIIMS (New Delhi), NII (New Delhi) National Institute of Communicable Diseases (New Delhi), CDRI (Lucknow), TERI (New Delhi), SGRH (New Delhi), IARI (New Delhi), JNU (New Delhi), Delhi University, IGIB (New Delhi), etc.

▶ The departmental collaboration is established with JALMA, Agra for animal BSL-3 experimentation.

▶ A new BSL-II facility well equipped with Biosafety level-II B2 cabinet (Haier), CO<sub>2</sub> incubator and microscope for infectious disease and clinical studies has been developed in the department.

The department is the recipient of UGC-SAP and DST-FIST grants. In addition, the teachers are having their individual project grants from various government funding agencies such as DST-SERB, ICMR, AYUSH, CSIR, UGC and DBT/Welcome Trust India Alliance and also consultancy projects from industries.

## CENTRE FOR TRANSGENIC PLANT DEVELOPMENT

Centre for Transgenic Plant Development as a unit of the Dept. of Biotechnology was established in February 2004 with the research grants of CSIR (TMOP&M), Department of Agriculture Cooperation and Farmers Welfare, Govt. of India and inaugurated by Hon'ble Minister of Agriculture, Govt. of India, with a mandate to focus research in the development of novel varieties of crops and medicinal plants with improved yield and quality of produce as well as development of DNA based finger prints for authentication of traditional medicines. Various labs in the Centre have state-of-the-art facilities to train Ph.D. and postdoctoral students and to carry out research in various disciplines of Plant and Microbial Biotechnology. These include Confocal Microscope, GC-MS, Spectrophotometer, Real-Time PCR, Gel Doc, HPLC, Transgenic Containment and Tissue Culture.

**THRUST AREAS:** The thrust areas of Centre also include cloning, characterization and regulation of expression of novel genes linked with tolerance to biotic and abiotic stresses and quality traits of medicinal and crop plants, authentication and standardization of crude components of herbal formulations, nano vehicle assisted gene delivery and genome editing in plants.

The Centre is funded from Jamia Hamdard and other government agencies such as DST, DBT, Department of AYUSH, CCRUM, CSIR, ICMR, DRDO etc. for R&D projects. The consultancy projects from biotech companies are also carried out in the Centre

## AREA OF FOCUS

In order to achieve a better and more sustainable future for all, in 2015 the UN's General Assembly created a blueprint of 17 goals and 169 targets which are collectively known as UN sustainable development goals (SDGs). Addressing the global challenges we face, including those related to poverty, climate, environmental degradation, prosperity and health, these goals drive the work of countries, UN agencies as well as NGOs and companies across the World. Our two-day National Conference on "Biotechnology for Sustainable Development and Human Welfare" will be focusing on cutting edge technologies and ongoing research in the field of Biotechnology to achieve the United Nation's Sustainable Development Goals. The planned sessions will highlight the recent developments in the area of biotechnology to combat debilitating and rare diseases, stop the outbreak of infectious diseases, reduce our environmental footprint, relieve poverty, feed the hungry, use less and cleaner energy, provide clean drinking water, protect biological diversity on land and in our oceans, and have safer, cleaner and more efficient industrial manufacturing processes. The key focus of the seminar will be to share novel Biotechnological approaches to explore and discuss promising solutions of the challenges concerning excellence in better health care, novel molecules as new drug, advance diagnostic tools, enhanced food security, improved supplies of potable water, more efficient industrial development processes for transforming raw materials that support UN SDGs and offer new opportunities for global partnerships.

## AWARDS

Posters and oral presentations will be evaluated by the team of eminent scientists and the selected posters and best oral presentation will be awarded.

## IMPORTANT DATES

**Abstract Submission**

**25<sup>th</sup> January, 2025**

**Last Date of Registration**

**30<sup>th</sup> January, 2025**

**Conference and Workshop Dates**

**19<sup>th</sup> - 21<sup>st</sup> February, 2025**

## SUBMISSION OF ABSTRACT

**Soft copies of the abstract not exceeding 250 words only in MS word format should be sent to the following email address**

**Email: [biotechdept.conference@gmail.com](mailto:biotechdept.conference@gmail.com) on or before 25<sup>th</sup> January, 2025**

## FEES REGISTRATION

Registration fees of Rs. 750 for M.Sc., Rs. 2000 for Ph.D. , post doc students and Rs. 3000 for Scientists/Academicians is applicable. On the spot registration charges will be Rs. 2500 for students and Rs. 3500 for Academicians/Scientists. The registration fee for those who wants to attend workshop is Rs. 3000. Limited seats are available (20 seats) which will be given on first come first serve basis. The registration fee for those who will attend both conference and workshop is Rs 4000. The registration link is provided below:

Link:[https://docs.google.com/forms/d/1q8s9pSA6g2dmtcUJNE3A\\_nULoOTouswkTSeBFFOIFRw/edit](https://docs.google.com/forms/d/1q8s9pSA6g2dmtcUJNE3A_nULoOTouswkTSeBFFOIFRw/edit)



## TECHNICAL SESSIONS

- ▶ **Agricultural Innovations and Environmental Sustainability**
- ▶ **Next-gen Cancer Biology and Emerging Infectious Diseases**
- ▶ **Insights into Molecular Virology for Global Health Security**
- ▶ **Molecular Medicine and Systems Biology**
- ▶ **Advancing Food Technology for Global Health**
- ▶ **Nano-pharmaceuticals and Cutting Edge Nano-diagnostics**
- ▶ **Biotech Frontiers: Navigating Innovation, Ethics, and Policy**
- ▶ **Green Gold: Innovations in Medicinal and Aromatic Plant**
- ▶ **Phytomedicine and Cancer Biology**

## ACCOMODATION

Participants are requested to make their own arrangement for accommodation, travel, boarding and lodging. However, limited accommodations on first come first serve basis will be provided on request.

# Sustainable Biotech Solutions for Global Challenges

**National Conference Cum Workshop  
19<sup>th</sup> - 21<sup>st</sup> February, 2025**



**SUSTAINABLE  
BIOTECH SOLUTIONS  
FOR GLOBAL CHALLENGES**



**Jamia Hamdard**  
Deemed to be University  
Accredited in 'A<sup>+</sup>Grade by NAAC

## Organized By:

**Department of Biotechnology  
School of Chemical and Life Sciences  
Jamia Hamdard, New Delhi-110062**

## Venue:

**Convention Centre, Jamia Hamdard  
New Delhi-110062**

**Web: [www.jamiahamdard.edu](http://www.jamiahamdard.edu)**



## ORGANIZING COMMITTEE

### CHIEF PATRON

Janab Hammad Ahmed  
**Chancellor**

Jamia Hamdard, New Delhi  
**PATRON**

Professor (Dr.) M. Afshar Alam  
**Vice-Chancellor**  
Jamia Hamdard, New Delhi

## CHAIRPERSON

**Professor (Dr.) Suhel Parvez**

Dean, School of Chemical and Life Sciences

## ORGANIZING SECRETARY

**Professor (Dr.) M.Z. Abdin**

Department of Biotechnology, SCLS

## CONVENERS

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Department of  
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Dr. Jagriti Narang  
Department of  
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Dr. Monica Saifi  
Department of  
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## TREASURER

**Dr. Javed Ahmad**

Department of Biotechnology, SCLS

## ADDRESS FOR ALL COMMUNICATIONS

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## STEERING COMMITTEE

- ▶ Dr. T Mohpatra, President, National Academy of Agricultural Sciences (NAAS); Former Director General, Indian Council of Agricultural Research (ICAR), New Delhi.
- ▶ Professor SPS Khanuja, Former Director, Central Institute of Medicinal and Aromatic Plants, Lucknow, U.P.
- ▶ Professor Praveen Verma, Director, R&D Cell, School of Life Sciences, Jawaharlal Nehru University, New Delhi.
- ▶ Dr. Sudhanshu Vrat, Executive Director, Regional Centre for Biotechnology (RCB), Faridabad.
- ▶ Professor K.C. Bansal, Secretary, National Academy of Agricultural Sciences (NAAS); Former Director, NBPGR (National Bureau of Plant Genetic Resources) New-Delhi.
- ▶ Dr. Sanjay Kumar, Director, CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur, H.P.
- ▶ Dr. Ajit Kumar Shasany, Director, National Institute for Plant Biotechnology (NIPB), PUSA Campus, New-Delhi.
- ▶ Professor Ashwani Pareek, Executive Director, National Agri-Food Biotechnology Institute, Mohali, Haryana.
- ▶ Dr. Shubhra Chakraborty, Director, National Institute of Plant Genome Research (NIPGR), New-Delhi.
- ▶ Dr. Niranjana Chakraborty, Sr. Scientist, National Institute of Plant Genome Research (NIPGR), New-Delhi.
- ▶ Dr. Vishwanathan Chinnusamy, Head, Division of Plant Physiology & Joint Director of Research, Indian Agricultural Research Institute (IARI), New-Delhi.
- ▶ Dr. Amulya K. Panda, Associate Director at Panacea Biotech, New-Delhi.
- ▶ Dr. Mohd. Aslam, Consultant, National Productivity Council (NPC), Department of Biotechnology, Government of India.
- ▶ Dr. Vibha Ahuja, Chief General Manager of Biotech Consortium India Ltd., New Delhi.
- ▶ Professor Tanveer Naved, Deputy Dean-Health and Allied Sciences Domain, Centre Head-Pharmacognosy and Natural Products, Amity Institute of Pharmacy, Amity, Noida, U.P.
- ▶ Dr. Amol Kumar U Solanke, Senior Scientist, National Institute of Plant Biotechnology, New Delhi.
- ▶ Professor Shailja Singh, Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi.
- ▶ Professor Harvagiray R. Chitme, Deputy Director, Amity Institute of Pharmacy, Amity University, Noida, UP.
- ▶ Dr. Vikesh K. Shukla, Head of the Department, Amity Institute of Pharmacy, Amity University, Noida, UP
- ▶ Dr. Saman Fatima, Assistant Professor, Amity Institute of Pharmacy, Amity University, Noida, UP

## SPONSORSHIP

Industries/NGOs/Dealers are invited to sponsor the Seminar. The equipment, glassware, plasticware suppliers can exhibit their products during the three-days conference cum workshop.

Half page advertisement : 10,000 INR

Full page advertisement: 20,000 INR

Exhibition: 25,000 INR

Any Industries/NGOs/Dealers can also sponsor the conference kit for – 250 delegates.

## ORGANIZING COMMITTEE MEMBERS

- ▶ Professor M.Z. Abdin, Department of Biotechnology, School of Chemical and Life Sciences, Jamia Hamdard, New-Delhi.
- ▶ Dr. Humaira Farooqi, Department of Biotechnology, School of Chemical and Life Sciences, Jamia Hamdard, New-Delhi.
- ▶ Dr. Saima Wajid, Department of Biotechnology, School of Chemical and Life Sciences, Jamia Hamdard, New-Delhi.
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- ▶ Dr. Mairaj Ahmad Ansari, Department of Biotechnology, School of Chemical and Life Sciences, Jamia Hamdard, New-Delhi.
- ▶ Dr. Monica Saifi, Department of Biotechnology, School of Chemical and Life Sciences, Jamia Hamdard, New-Delhi.
- ▶ Dr. Javed Ahmad, Department of Biotechnology, School of Chemical and Life Sciences, Jamia Hamdard, New-Delhi.

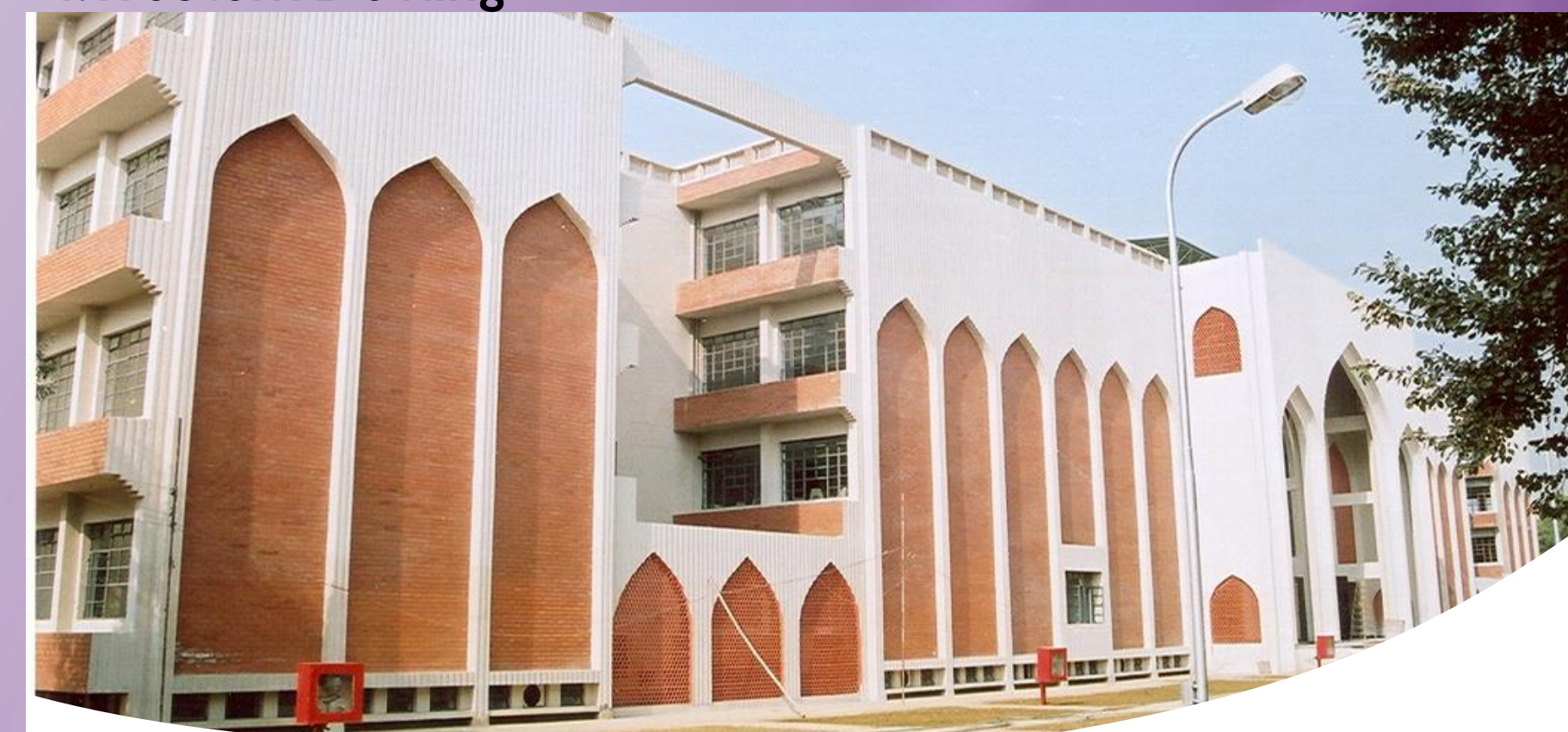
## WORKSHOP

1.3D printing for wearable electronic applications

2. Gene Cloning and expression analysis of genes using qPCR

3. Metabolome profiling of biological sample using GC-MS

4. Western Blotting



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