

## HOW TO APPLY

The complete application form in the prescribed format forwarded by Head of the institute or Department authority should reach the Course Director, NAHEP-Centre for Advanced Agricultural Science and Technology (CAAST), Division of Plant Pathology, ICAR-IARI, New Delhi on or before 18<sup>th</sup> February 2023 over email [castnahep.plantpatho@gmail.com](mailto:castnahep.plantpatho@gmail.com) (No need to send hard copy). Application form can be downloaded from [www.iari.res.in](http://www.iari.res.in) and [www.nahep-caast.iari.res.in](http://www.nahep-caast.iari.res.in). Selected candidates will be intimated by email on or before 25<sup>th</sup> February, 2023.

## WHO CAN PARTICIPATE

M.Sc. and Ph.D. students of ICAR-Deemed to be Universities/SAUs/CAUs/CUs/ other UGC recognized Universities and Research Institutes are eligible to apply. A maximum of 25 students/research fellows will be selected for participation in the training programme. Working knowledge of computers is mandatory.

## IMPORTANT DATES

**Last Date for applications: 20<sup>th</sup> February 2023**

**Duration of Training: March 10-20, 2023**

**Intimation of Selection: 25<sup>th</sup> February, 2023**

**The programme is coordinated by PG School,  
IARI, New Delhi**

## FINANCIAL SUPPORT

Outstation selected students/research fellows shall be provided AC Ill tier train or bus fare by shortest route and free moderate lodging and boarding as per ICAR norms at IARI Guest House/ Trainee's Hostel. No registration fee will be charged for the course.

## Organizers

### Course Director

**Dr. A. Kumar**

Principal Scientist, Division of Plant Pathology,  
ICAR-IARI, Pusa Campus,  
New Delhi-110012

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### Course Coordinators

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**Dr. Amrita Das**

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**Dr. Deeba Kamil**

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Phone: 09212281285

### Venue:

Lectures and Practicals: Discovery centre and Division of Plant Pathology, ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012.



**National Agricultural Higher  
Education Project (NAHEP)**

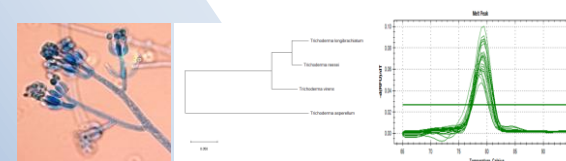
**Sponsored  
Training**

**Fungal Genome Sequencing: Basic  
Biology to Biotechnology**

**March 10 -20, 2023**

**at**

**Division of Plant Pathology,  
ICAR-IARI, Pusa Campus, New Delhi**



*Organized by*

*Center for Advanced Agricultural Science and  
Technology (CAAST)*

**ICAR-Indian Agricultural Research  
Institute  
Pusa Campus, New Delhi- 110012**

### About NAHEP-CAAST

**Centre for Advanced Agricultural Science and Technology (CAAST)** is a new initiative and student centric sub-component of **World Bank** sponsored **National Agricultural Higher Education Project (NAHEP)** granted to IARI to provide a platform for strengthening educational and research activities of post graduate and doctoral students. CAAST theme for IARI is **Genomic assisted crop improvement and resource management** that specifically aims at inculcating genomics literacy and skills among the student.

### About the Organizing Institutes

The ICAR-Indian Agricultural Research Institute (IARI), New Delhi is the seat of green revolution in India, and continues to contribute to the food and livelihood security of the Nation. Besides, its enormous research contributions, IARI is the premier Institute for higher education in Agriculture in the Country. IARI was ranked as A+ Institute by NAAC, and was given Special Institution Status by IoE Committee of UGC, Ministry of HRD, Govt of India.

The Division of Plant Pathology is more than 100 years old. It was originally established in 1905 as Mycology section of Imperial Agricultural Research Institute (IARI) at Pusa, Bihar to initiate mycological and plant pathological research in India. Disease diagnosis, detection of pathogens, genome sequencing and management of disease risks have been the main fabric of Divisional research. The Division has highly trained scientific, technical and field staff. It has well equipped laboratories to work on next generation sequencing, host pathogen interaction, diagnosis and characterization of plant pathogens, electron and confocal microscopy, advance molecular tools for disease diagnosis, tissue culture, plant transformation etc.

With this background, the Centre for Advanced Agricultural Science and Technology (CAAST) proposes a training programme sponsored by National Agricultural Higher Education Project (NAHEP) on "Fungal genome sequencing: basic biology to biotechnology" for the benefit of the post graduate and doctoral students, and potential stakeholders.

### Details about training

Fungi are one of the most important groups of organisms on the planet. They are used in food (Mushrooms and Morels); baking industry; production of enzymes, antibiotics, hormones and different organic acids; organic matter decomposition; symbiotic relation with plants and are also potential biotic threats to crop production. The genome sequences provide a first glimpse into the genomic basis of the biological diversity of the filamentous fungi and yeast. In due course of time, a substantial number of fungal genomes have been sequenced and publicly released, representing the widest sampling of genomes from any eukaryotic kingdom. Ambitious genome sequencing program, provides a wealth of data on metabolic diversity within the fungal kingdom, thereby enhancing research into medical science, agriculture science, ecology, bioremediation, bioenergy, and biotech industry. Fungal genomics have higher potential to positively affect human health, environmental health and the planet's stored energy. With the significant increase in sequenced fungal genomes, the known diversity of genes encoding organic acids, antibiotics, enzymes and their pathways has increased exponentially. Till date, over hundreds of fungal genome sequences are publicly available. The proposed training program would therefore be an essential event for researchers of plant pathology on a national scale to have active interactions and hand-on experiences to hone their skills in the area of fungal genome and their transitional research and provides the road map for basic and applied research among the trainees.

The program consists of series of lectures and practicals by the eminent experts. Broadly topics covered are Next Generation Sequencing concepts, genome sequencing pipelines and bioinformatics tools, approaches to fungal genome annotations, fungal genome databases, comparative genome analysis, SSR and SNP mining and variability analysis, fungal genomics in improving taxonomic delimitation of fungal species, fungal genome and plant diseases, fungal genome and bioactive compound production, role of genome sequencing in plant disease diagnosis, epidemiology and management.

### Application Form

(May strike out which is not applicable)

Photo

1. Full Name (block letters) :
2. Course (Ph.D./M.Sc./Any others) :
3. Date of Birth :
4. Sex (Male/Female/Others) :
5. Category (UR/OBC/SC/ST) :
6. Discipline :
7. Domicile State :
8. Affiliation :
9. Address for Correspondence :  
(including Phone, Fax & E-mail\*)  
Email must for intimation of selection
10. Educational Qualifications :

Degree	Board/Univ ersity	Subject	Year	Marks %/*OGPA
Ph.D.				
M.Sc.				
B.Sc.				
Other				

\*Up to the completed trimester for current students

11. Professional Experience :
12. M.Sc. & Ph.D. Thesis  
(Title & Objectives & Output)
13. Current area of Research/ Project:
14. Fellowship :
15. Awards :
16. Does your current Research / Project need fungal  
genome sequencing? :
17. Publications :

Date: Signature of Applicant

Place:  
18. Certificate and Recommendation by the forwarding  
authority :

It is certified that the information provided above is verified from the records and found correct. The applicant is recommended & nominated for attending the NAHEP sponsored Training cum workshop on 'Fungal genome sequencing: basic biology to biotechnology' at IARI, New Delhi.

Date: Signature with seal of the Authority  
Place: