

BRIC-National Institute of Plant Genome Research (BRIC-NIPGR), New Delhi

PhD Programme in Plant Biology and Biotechnology

The BRIC-National Institute of Plant Genome Research (BRIC-NIPGR) is an autonomous research institution funded by the Department of Biotechnology, Ministry of Science and Technology, Government of India. The Institute was established in the year 1998 with the objective of conducting and promoting research of high caliber in basic and applied areas of plant science and agricultural biology. The post-genomic era has witnessed a quantum leap in the biological research, at both the cellular and systems levels. In this context, BRIC-NIPGR is uniquely placed for its sole thrust on research in plant genomics. Through its infrastructural base for academia-industry interactions and knowledge-based resources, BRIC-NIPGR is poised to contribute towards frontier areas of Plant Biology. All biology research has been permeated by genomics and as a result new ways of understanding plant life and tailoring crops by genetic enhancement are emerging. BRIC-NIPGR aims to contribute to the achievements of such hopes arising out of the current pace of genomics research. The research programmes at BRIC-NIPGR are aimed at understanding the structure, expression and function of genes in plant genomes, and use this understanding of plant genes/genomes to genetically improve crops for high yields and better quality.

Vision

To generate new knowledge in the area of plant biology, assimilate it with current knowledge, and translate the same for genetic enhancement of plants for social benefits.

Career Opportunities

1. Academic positions in the government-funded as well as private universities and Institutes in the country, and abroad.
2. Research and Development positions in the Industries.
3. Postdoctoral fellowships in the country and abroad.
4. Initiating start-ups and Entrepreneurship.

Admission Process

The detailed advertisement for admission to Ph.D. programme of the Institute is published every year in the month of April.

The Admission to the Ph.D. programme of the Institute is in accordance with the provisions contained in the Ph.D. Ordinances of the Regional Centre for Biotechnology, Faridabad, and as per provisions adopted by the Institute with the approval of the Academic Committee of the Institute.

The Institute invites applications from candidates who have completed or will be completing M.Sc. or equivalent degree (by August 31 of the concerned Admission Year) in Plant Sciences / Life Sciences and/or in related disciplines with minimum 55% marks, and have cleared the CSIR-UGC NET exam/DBT-JRF (selected through BET/BINC) exam for JRF (with a Junior Research Fellowship valid at least up to December 31 of the concerned Admission Year) for pursuing full-time Ph.D. program, for conducting advanced research in the frontier areas of Plant Biology such as, Computational Biology, Multiomics, System & Structural Biology; Genome Analysis and Molecular Mapping; Molecular Mechanism of Abiotic Stress Responses; Plant-Pathogen/Microbe Interactions & Plant Immunity; Nutritional Genomics; Plant Development and Architecture; Molecular Breeding, Gene Editing and transgenics for crop improvement and other emerging areas in plant biology. Reservations are as per statutory norms.

Candidates should register first and then follow steps for filling the Online Application Form. The application fee is 500/- (200/- for SC/ST/PWD/EWS candidates provided relevant documentary proof is enclosed with the Application Form). The application fee is not refundable. The online link for application is available at http://www.nipgr.ac.in/online_phd/index.php. **(Certificates issued by the Union/Central Government / appropriate authority will be considered for admission against the reserved seats).**

The admission Form is to be filled and submitted ONLINE ONLY along with required documents uploaded in the given format and an online payment through SBI Collect. **No hard copies will be accepted. The selection will be made on the basis of interview/Viva-Voce.**

The selected candidates are enrolled for Ph.D. program in academic affiliation with the Regional Centre for Biotechnology, Faridabad. NIPGR provides hostel accommodation to selected candidates (subject to availability).

Allotment of Research Supervisor

- Following registration, the students are offered a list of available positions/vacancies available with the concerned faculties. Thereafter, the students are required to interact with the faculty members of the Institute to discuss and submit their preferences (up to 4) in the prescribed format of the Institute for joining a laboratory. Based on the preferences received from the students and following faculty meeting, the supervisors allotted to the respective students are notified with the approval of the Director of the Institute.
- It is expected that by following the criteria/procedure given above, every student would get a supervisor from their given preferences. However, in case any student could not find any supervisor, he/she is asked to interact with the remaining faculties who have vacancy for that academic year. The allotment is made based on a student preference, and mutual agreement with the faculty concerned. The decision made in this regard would be final and binding. Institute will not allow any student to continue without allotment of a supervisor.
- Before joining a lab, students should ensure the areas of research, and that the lab of their choice is in synchrony with his/her interest. It needs to be emphasized that once the lab allotment is done, there is no scope for change of lab. However, in case of extraordinary circumstances, the Research Scholar and the Research Supervisor/Co-supervisor together may request in writing for change of supervision arrangement. Such request shall be addressed to the Chairperson of the Academic Committee, who shall place it before the Internal Committee. The Internal Committee, may, if it is considered to be appropriate, feasible and in the best interests of all, recommend to the Academic Committee of the Institute or its equivalent body, as the case may be, for change of Research Supervisor/Co-supervisor. The Academic Committee of the Institute or its equivalent body may appoint, in such case, different Research Supervisor/Co-supervisor. In such cases, the student has to submit a fresh synopsis, get it approved by the concerned Research Advisory Committee and two years residency would re-start from the date of change of lab/supervisor.

Course Work

- The Research Scholars are required to complete the prescribed course work approved by Regional Centre for Biotechnology which is a pre-requisite for Ph.D. preparation. The duration of the course work shall be one year divided into two semesters.

There are two semesters in this course work. The total course credit is **12 (twelve)** Each credit hour comprises twelve teaching hours.

Course Code	Course Title			Credit
SEMESTER-1				
NIPGR 402	Biostatistics and Data Science			3
NIPGR 403	Plant Physiology & Development	3 credits	any one	3
NIPGR 404	Stress Biology and Crop improvement	3 credits		
SEMESTER-2				
NIPGR 405	Research Methodology			4
NIPGR 401	Scientific Communication & Ethics			2
TOTAL CREDITS				12

- All Research Scholars admitted to the Ph.D. programme shall be required to complete the course work in the initial two semesters only. In no case shall a Research Scholar be allowed to repeat any course either in the event of failure or for improving the grades.

Assignment to a Student Advisory Committee (SAC)

- There shall be a Student Advisory Committee constituted by the Academic Committee of the Institute or its equivalent body, as the case may be, on the recommendation of the concerned Research Supervisor, for each Ph.D. Scholar. The Research Supervisor shall be the Member Convener of this Committee.

The power of the Academic Committee of the Institute or its equivalent body to constitute Student Advisory Committee, on the recommendation of the concerned Research Supervisor, shall include the power to re-constitute it, if and whenever required.

- The Student Advisory Committee, in addition to the responsibilities imposed under the other provisions of the relevant Ordinance relating to the award of Ph.D. degree, shall also have the following responsibilities:
 - (i) To review the research proposal and finalize the topic of research;
 - (ii) To advise the research scholar to develop the study design and methodology of research and identify the course(s) that he/she may have to do; and
 - (iii) To periodically review and assist in the progress of the research work of the research scholar.
- A Research Scholar shall appear before the Student Advisory Committee annually for first three years and subsequently, after every six months to make a presentation of the progress of his/her work for evaluation and further guidance. The progress reports shall be submitted by the Student Advisory Committee to the Academic Committee of the Institute or its equivalent body with a copy to the research scholar.

- In case the progress of the research scholar is unsatisfactory, the Student Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures within reasonable time, the Research Advisory Committee may recommend to the Academic Committee of the Institute or its equivalent body, as the case may be, with specific reasons for cancellation of the registration of the research scholar.

Note:

- (a) Students must follow the directives of the assigned Student Advisory Committee.
- (b) A pre-submission SAC and approval is mandatory in terms of the relevant Ordinance relating to award of Ph.D. degree before final submission of the Ph.D. thesis.

Approval of Synopsis

- The candidates admitted to the Ph.D. programme of the Institute shall have their research proposal/synopsis approved by the concerned Student Advisory Committee within two semesters (one year) from the date of completion of their course work.
- The research proposal/synopsis approved by the Student Advisory Committee shall be presented before the Academic Committee of the Institute, as the case may be, for ratification.

Confirmation of Admission

- The Academic Committee of the Institute, as the case may be, shall confirm the admission of the candidates, who fulfil the eligibility criteria for confirmation in the Ph.D. programme as Research Scholar.
- The candidates provisionally admitted to the Ph.D. programme of the Institute shall be eligible for confirmation in the Ph.D. Programme as Research Scholar if he/she has completed the course work with prescribed CGPA in terms of the relevant Ordinance relating to award of Ph.D. degree; and his/her research proposal/synopsis is approved as stipulated above.

Submission of Thesis

- Upon confirmation of the admission, the Research Scholar shall be required to undertake research work and produce a draft thesis within the duration of the Programme or within the extended, where extension has been granted in terms of the relevant Ordinance relating to the award of degree of Doctor of Philosophy.
- Prior to the submission of the thesis, the Research Scholar shall make a presentation in the Institute before the Student Advisory Committee member(s), which shall also be open to all faculty members and other research scholars. The feedback and comments obtained from them may be suitably incorporated into the draft thesis in consultation with the Student Advisory Committee.
- The Research Scholar, before the submission of the thesis for adjudication, shall at least have one scientific publication in refereed journal and make two presentations in conferences, seminar, etc., and produce, at the time of submission, evidence for the same in the form of reprints or photocopy of the paper published or acceptance letter and certificates of paper presentation.
- The Research Scholar, before the submission of the thesis for adjudication, shall carry out the plagiarism verification in accordance with the guidelines formulated by the Regional Centre for Biotechnology, Faridabad. The Plagiarism Verification Certificate issued in this regard shall certify and authenticate the check performed. In this connection, the Plagiarism Verification Certificate is required to be submitted at the time of submission of thesis for evaluation and adjudication.

- While submitting for evaluation, the Research Scholar shall include in the thesis a Declaration attesting to the originality of the work, vouching that there is no plagiarism and that the work has not been submitted for the award of any other degree/diploma of the Institute/RCB or to any other Institution/University in India or abroad. The declaration of the Candidate shall be countersigned by the Research Supervisor/Co-Supervisor.

Remarks: For detailed guidelines/references on the above including Extension etc., the ‘Ordinance relating to the award of degree of Doctor of Philosophy’ of Regional Centre for Biotechnology, Faridabad, may be referred to.