**National Agri-Food Biotechnology Institute (NABI)**

**(Dept. of Biotechnology, Ministry of Science & Technology, Govt. of India)**

**Sector-81, Knowledge City, Manauli P.O, S.A.S. Nagar-140306, Punjab, India.**

**Website: www.nabi.res.in.**

**Advertisement no. NABI/Admin/5(09)/2022-23/ACAD-08**

**Walk-In-Interview for temporary position of Junior Research Fellows & Senior Research Fellow**

National Agri-Food Biotechnology Institute (NABI) is an autonomous Institute under the Department of Biotechnology, Government of India. NABI aims at catalysing the transformation of the Agri-food sector in India by being a nodal organization for knowledge generation and translational science leading to value-added products based on Agri-Food biotech innovations for improved household nutritional security. Since its inception in 2010, NABI is involved in research activities for Biofortification, the development of designer crops for improved nutrition, providing sustainable and novel solutions for quality food and nutrition, and the development of evidence-based functional foods to counter malnutrition. The food and nutritional Biotechnology division at **NABI requires the following research personnel purely on a temporary basis.**

1. **Project Title: “Identification and characterization of specific genes/metabolites linked with rancidity and their bioavailability patterns in landraces and elite cultivars of pearl millet for the development of nutri-rich products”. (NASF funded project)**

**Principle Investigator:** Dr. Nitin Singhal, Scientist-E

**Positions:** Senior Research Fellow (01)

**Duration:** Appointment is co-terminus with the project along with the availability of funds.

**Essential Qualification: -** Master degree in relevant subject with 4 years / 5 years of Bachelor’s degree. Candidates having post-graduate degree in basic sciences with 3 years Bachelor’s degree and 2 years Master’s degree should have ICAR/UGC/CSIR NET qualifications and 2 years of research experience as mentioned in OM No. Edn./6/27/2014/HRD dates 13th July, 2015, OM No. Agril. Edn. 6/27/2014-HRD 9th October, 2015 of the council, OM SR/S9/Z-09/2018 of DST dated 30th January 2019 and OM F.No. Ag. Edn.6/27/2014-HRD dated 30th July 2019.

Qualification prescribed above with two years of research experience.

**Emoluments:** As per NASF/ICAR guidelines

**Desirable Experience: -**

1. Experience in the gene/metabolite analysis through different techniques.

2. Practical knowledge of bioavailability assessment, cell culture and molecular techniques, animal handling.

3. Relevant research publications in peer-reviewed journals.

**Responsibilities: -** Recruited SRF will work on the assessment of bioavailability patterns in different cultivars of pearl millet in *in vitro* and *in vivo* models.

**Age:** As Per ICAR guidelines (35 years (Relaxation is admissible in case of SC/ST/OBC candidates as per Government instructions)

1. **Project title: “Mining nonhost resistance (NHR) genes for engineering *Alternaria* Blight resistance in Indian Mustard (*Brassica juncea*)” (GAP-43)**

**Principle Investigator:** Dr. Sivasubramanian R, Scientist D

**Positions:** Junior Research Fellow (01)

**Duration:** Till 17th March, 2024.

**Project Summary:**

The project focusses on discovering non-host resistance genes against a major necrotrophic pathogen of the oilseed Brassicas, *Alternaria brassicae*. The project involves identification and characterisation of effectors in the culture filtrate of *A. brassicae.* Some of the characterised effectors would be used as baits to identify host and non-host interacting proteins in *Brassica juncea* and *Nicotiana benthamiana*. The identified interacting partner(s) would be validated using immunoprecipitation and BiFC assays. Further, the candidate interacting partner(s) would be functionally validated by overexpressing it in *Arabidopsis thaliana,* followed by disease bioassays on the overexpression lines. This project involves handling fungal cultures, molecular cloning, mass spectrometry, and other protein-protein interactions assays.

**Essential qualifications: -**

Post graduate degree in any branch of life sciences /biotechnology or Graduate/Post Graduate in any branch of life sciences or biotechnology selected through a process described through any one of the following

a) Scholars are selected through National Eligibility Tests-CSIR UGC NET including Lectureship (Assistant Professorship) and GATE.

b) The selection process through National level examinations conducted by Central Government Departments and their agencies and institutions such as DST, DBT,DAE,DOS,DRDO,MHRD,ICAR,ICMR,IIT,IISc,IISER etc.

Emoluments and eligibility is as per DST OM SR/S9/Z-08/2018 dated 30th January, 2019.

**Desirable qualifications: -**

Proven experience in microbiology/plant pathology, mass spectrometry, and protein-protein interaction studies would be considered as a plus.

**Age limit:**

28 Years as on date of interview. (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instruction.

**Emoluments:**

Rs.31000/- per month plus 8% HRA for 1st & 2nd Year and from 3rd Year onwards Rs 35,000 per month plus 8% HRA.

1. **Project title: “Exploring the genetic resources of Indian *Arabidopsis thaliana* populations for utilization in *Brassica* crops against prevalent fungal diseases” (GAP-57)**

**Principle Investigator:** Dr. Sivasubramanian R, Scientist D

**Positions:** Junior Research Fellow (01)

**Duration:** Till June 2025.

**Project Summary:**

The project focuses on discovering resistance genes against major pathogens of the oilseed Brassicas, using the genetic resources of Indian Arabidopsis populations. The project involves sequencing of Indian Arabidopsis populations, and screening the accessions for various diseases. Further, GWAS/QTL mapping approaches will be used to identify candidate genes. This multidisciplinary project will combine different approaches of plant pathology, genomics, and quantitative genetics to provide answers to some of the vital problems in breeding for disease-resistant Brassica crops. This project involves handling fungal cultures, third generation sequencing (Nanopore sequencing), phenotyping, and other comparative genomics analyses.

**Essential qualifications: -**

Post graduate degree in any branch of life sciences /biotechnology or Graduate/Post Graduate in any branch of life sciences or biotechnology selected through a process described through any one of the following

a) Scholars are selected through National Eligibility Tests-CSIR UGC NET including Lectureship (Assistant Professorship) and GATE.

b) The selection process through National level examinations conducted by Central Government Departments and their agencies and institutions such as DST, DBT, DAE, DOS, DRDO, MHRD, ICAR, ICMR, IIT, IISc, IISER etc.

Emoluments and eligibility is as per DST OM SR/S9/Z-08/2018 dated 30th January, 2019.

**Desirable qualifications: -**

Proven experience in microbiology/plant pathology, genomics, and quantitative genetics would be considered as a plus.

**Age limit:**

28 Years as on date of interview. (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instruction.

**Emoluments:**

Rs.31000/- per month plus 8% HRA for 1st & 2nd Year and from 3rd Year onwards Rs 35,000 per month plus 8% HRA.4.

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1. **Project Title: Understanding of gene regulation for high starch biosynthesis with relation to high grain yield in wheat. (NABI Core Fund)**

**Principal Investigator:** Dr Joy K. Roy, Scientist-F

**Positions:** Senior Research Fellow (01) (NABI Core)

**Maximum duration :** 1 year

**Project Summary:** The project activities are given below:

i) Genotyping of mapping populations such recombinant inbred line/back-cross populations using molecular markers such as microsatellites (SSRs);

ii) Phenotyping of starch related and other agro-morphological traits including yield on the wheat lines at multi-locations within India;

iii) Identification of markers or candidate genes associated with starch quality and yield-related traits using QTL mapping approach;

iv) Conversion of candidate markers and genes into breeder’s markers for selection in breeding program;

v) Functional analysis of regulatory genes for high starch biosynthesis with relation to high grain yield in wheat.

**Essential Qualifications:**

i) Post graduate degree in basic Science OR Graduate /Post Graduate Degree in professional course and

ii) Having qualified national exams such as GATE, CSIR/UGC-NET, DBT-Category 2, and ICAR-NET

iii) The qualification prescribed above with two years of research experience, preferably as JRF. (DST OM No. SR/S9/Z-08/2018 dated 30.01.2019).

**Emoluments:** Rs.35,000/- per month (plus HRA, if hostel accommodation is not available in NABI).

**Desirable qualifications:** Proven experience in agricultural biotechnology and molecular biology, specially in molecular markers and QTL mapping studies; experience in basic bioinformatics tools, etc.

**Area of research:** Molecular breeding and molecular biology

**Age Limit:** 32 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

1. **Project Title: “Development of breeder markers from the genes responsible for high amylose biosynthesis in wheat”. (Own Fellowship)**

**Principal Investigator:** Dr Joy K. Roy, Scientist-F

**Positions:** Junior Research Fellow (01) (Own Fellowship)

**PhD registration:** IISER-Mohali/DBT-RCB, Faridabad/Punjab University, Chandigarh

**Duration:** 5 years (Two years of JRF and will be converted to SRF after evaluation as per the funding agency guidelines)

**Project Summary:** The project activities are given below:

i) Genotyping of mapping populations such recombinant inbred line/back-cross populations using molecular markers such as microsatellites (SSRs);

ii) Phenotyping of starch related and other agro-morphological traits including yield on the wheat lines at multi-locations within India;

iii) Identification of markers or candidate genes associated with starch quality and yield-related traits using QTL mapping approach;

iv) Conversion of candidate markers and genes into breeder’s markers for selection in breeding program;

v) Functional analysis of regulatory genes for high starch biosynthesis with relation to high grain yield in wheat.

**Essential Qualifications:**

i) Post graduate degree in basic Science OR Graduate /Post Graduate Degree in professional course and

ii) Having own fellowship for 5 years from different funding agencies such as UGC, CSIR, DST, DBT, etc.

**Area of research:** Molecular breeding and molecular biology

**Age limit:** 28 Years (Relaxation is admissible in case of SC/ST/OBC/PD/EWS/ women and/or as per GOI Instructions)

**Application Procedure & Other Conditions**

1. All interested candidates may appear for Walk-In-Interview at National Agri-Food Biotechnology Institute located at Knowledge city, Sector-81, Mohali - 140306, Punjab on **­­­­­­03.10.2023** at **09:00 A.M.** along with the duly filled application form available on the website [www.nabi.res.in](http://www.nabi.res.in).

2. Incomplete application forms and applications that are not in proper format may be summarily rejected.

3. The applications should be submitted strictly as per the prescribed format that can be downloaded from the NABI website.

4. Candidates applying for more than one option can give their preference in the same application by ticking multiple options. No need to submit a separate application form for each option.

5. Candidates should ensure that information mentioned in the application form is accurate. Once the application form is submitted no further request regarding any changes/ information in the application form will be considered.

6. The duly filled application form must be submitted at the time of registration at NABI from **09:00 AM to 10:00 AM** on **­­­­­­03.10.2023**.

7. The candidates must ascertain their eligibility before applying, as ineligible candidates will not be interviewed.

 8. All the candidates are requested to appear for a Walk-In interview with an application form, experience certificates, publications, and original degree certificates and transcripts.

 9. Original mark sheets, certificates, award/fellowship, etc must be accomplished for verification at the time of the interview, and attach one set of attested copies of the documents with the application form.

10. No TA/DA will be paid for appearing in the interview.

11. Canvassing in any form or bringing influence, political or otherwise, will lead to disqualification of the candidate(s).

12. Candidates should strictly adhere to guidelines issued by World Health Organization and Centre Govt/State Govt on Covid-19.

 **Manager Administration**