

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.

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<u>Walk-In-Interview for temporary position of Research Associate-I, Senior Research Fellow and Junior Research Fellows</u>

National Agri-Food Biotechnology Institute (NABI) is an autonomous Institute under the Department of Biotechnology, Government of India. NABI aims at catalyzing 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: Structural characterization and dimerization potential of the bread wheat bZIP transcription factors. (NABI core)

Senior Research Fellow (One position)

Principal Investigator: Dr. Vikas Rishi, Scientist-F **Sponsoring Agency:** (Department of Biotechnology)

Essential Qualifications: -

- 1. Post Graduate Degree in Basic Science OR Graduate/Post Graduate Degree in professional course selected through a process described through any one of the following: -
- a. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship), GATE and GPAT
- 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.

Qualification prescribed above with two years of research experience.

Duration: - Appointment is co-terminus with the project

Desired Experience: - The project envisages the structural analysis of putative bZIP transcription factors in bread wheat. The focus of the study is to decipher the molecular mechanism underlying protein-protein interaction among all bZIPs found in bread wheat. The candidate should be well-versed in high-throughput cloning, protein purification, and various biochemical and biophysical techniques. Basic knowledge of bioinformatics is desirable.

Emoluments: - Rs. 35000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 32 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

2. Project title: Investigating the role and regulatory aspect of intrinsically disordered region(s) in DOF-transcription factor(s) with emphasis to rice grain quality. (CRG project - GAP-47)

Junior Research Fellow (One position)

Principal Investigator: Dr. Prafull Salvi, Scientist-C

Essential Qualifications: -

- 1. Post Graduate Degree in Basic Science OR Graduate/Post Graduate Degree in professional course selected through a process described through any one of the following: -
- a. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship), GATE and GPAT
- 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.

Duration: One year or the appointment is a co-terminus with the project along with the availability of funds. It will not exceed beyond the project.

Responsibilities: Recruited JRF will work on the yeast system for protein-protein and DNA-protein interaction study, development of rice transgenic plants, and study the gene regulatory network associated with grain quality and (a)biotic stress responses in rice.

Emoluments: - Rs. 31000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 28 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

3. Project title: Novel edible coating material for the postharvest quality improvement of perishable fruit crops. (EP-06)

Research Associate-I (One position)

Principal Investigator: Dr. Koushik Mazumder, Scientist-E

Summary: This is a Sree Padmavathi Venkateswara Foundation (Sree PVF) sponsored project.

Duration for RA position:

The research associate-ship is a purely temporary assignment and the duration of the project is up to 31.08.2024 or till the termination of the project whichever is earlier. The performance of the selected candidate will be evaluated after initial 1 year; further extension of another 1 year will be subject to submission of progress report submitted by selected candidate and satisfactory assessment remarks given by the principal investigator.

Job profile:

1. RA-I will be responsible for the up-scaling production of bio-polymer based coating material constituents.

- 2. RA-I will be responsible for the efficacy evaluation of the novel biopolymer based coating material for post-harvest quality improvement of fruit crops under various storage conditions (e.g. commercial cold storage).
- 3. RA-I will be responsible to work with academic and industrial partners for commercial trial on the fruit crops coated with biopolymer based coating material during transportation and storage.

Essential qualifications:

PhD in Food Engineering & Technology/Food Science & Technology/Food Engineering/Food Technology/Chemistry/Biochemistry or M.Tech in above related area with at least 3 years of research experience with at least one research paper in science citation indexed (SCI) journal; Candidates who have already submitted their PhD thesis in above subjects will also be eligible (along with proof of submission), but will be hired at SRF level till they receive their degree. (Eligibility criteria as per As per DST OM No. SR/S9/Z-08/2018 dated 30.01.2019).

Desirable qualifications:

- 1. Prior research experience by high impact peer reviewed publications.
- 2. Research experience in extraction of bio-polymers, chemical and functional characterization of biopolymer based coating materials.
- 3. Research experience in post-harvest quality improvement studies of fruit crops during storage.

Emoluments: The RA-I will be hired with the emoluments of Rs 47,000/month+ HRA as per the project.

Age Limit: The age limit of applicants for RA-I will be 40 years as on date of interview. (Relaxation is admissible in case of SC/ST/OBC/women as per government of India instructions).

4. Project title: Exploring genetic basis of multiple abiotic stress tolerance mechanism in rice. (NABI Core)

Principal Investigator: Dr. Rajeev Nayan Bahuguna, Scientist-D

I. **Junior Research Fellow (One position)**

Essential Qualifications: -

- 1. Post Graduate Degree in Basic Science OR Graduate/Post Graduate Degree in professional course selected through a process described through any one of the following: -
- a. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship), GATE and GPAT
- 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.

Duration: The appointment will be initially for two years as JRF. Further up-gradation from JRF to SRF will be on the basis of the submission of a progress report and further assessment.

Desirable Experience: General plant molecular biology related techniques such as cloning and qPCR, Plant tissue culture, Enzyme Kinetics, Metabolomics, Gas exchange measurements.

Responsibilities:

- 1. Gene expression analysis and metabolomics.
- 2. Crop phenotyping and gas-exchange measurements (Photosynthesis, respiration).
- 3. Enzyme analysis.

Emoluments: - Rs. 31000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 28 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

II. Research Associate-I (One position)

Essential Qualification: - Ph.D/MD/MS/MDS or equivalent degree or having 3 years of research, teaching, and design and development experience after MVSc/M.Pharm/ME/M.Tech with at least one research papers in Science Citation indexed (SCI) journal.

Duration: The RA fellowship is a purely temporary assignment and is tenable for a period of 1 year only, and in exceptional cases, depending upon the progress of the research, the performance, the committee may recommend the up-gradation of RA Levels.

Desirable Experience:

- 1. We seek an enthusiastic scholar interested in crop phenotyping, high throughput data analysis, stress physiology, stomatal biology. The project is focusing on delineating the genetic basis of multiple abiotic stress tolerance in cereal crops. Candidates are expected to have a solid foundation in Plant Physiology and Molecular Biology.
- 2. Experience in crop phenotyping, association mapping (GWAS); Stomatal regulation under different stress combinations
- 3. Relevant research publications in peer-reviewed journals.

Responsibilities: Recruited RA will work on crop phenotyping and association mapping, execute experiments in field and controlled environments, prepare reports and publications.

Emoluments: - Rs. 47000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 40 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

5. Project title: "Exploring plant microbiome for raising stress tolerance". (NABI Core)

Principal Investigator: Dr. Charanpreet Kaur, Scientist-D

I. Junior Research Fellow (One position)

Essential Qualifications: -

1. Post Graduate Degree in Basic Science OR Graduate/Post Graduate Degree in professional course selected through a process described through any one of the following: -

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

Duration: The appointment will be initially for two years as JRF. Further up-gradation from JRF to SRF will be on the basis of the submission of a progress report and further assessment.

Desirable Experience: Experience in molecular microbiology, fungi, biochemistry, physiology or microbiomics.

Responsibilities:

- 1. Plant growth experiments.
- 2. Isolating and culturing microbes from plant rhizosphere.
- 3. Metagenomics studies.

Emoluments: - Rs. 31000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 28 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

II. Research Associate-I (One position)

Project title: "Investigating the role of protein-based signals in plant stress and memory responses". (NABI Core)

Essential Qualification: - Ph.D/MD/MS/MDS or equivalent degree or having 3 years of research, teaching, and design and development experience after MVSc/M.Pharm/ME/M.Tech with at least one research papers in Science Citation indexed (SCl) journal.

Duration: The RA fellowship is a purely temporary assignment and is tenable for a period of 1 year only, and in exceptional cases, depending upon the progress of the research, the performance, the committee may recommend the up-gradation of RA Levels.

Desirable Experience: Candidate with experience in techniques such cloning, protein purification, yeast-two hybrids, and using CRISPR/Cas system-mediated rice transformation will be preferred.

Responsibilities: Recruited RA is required to execute experiments and prepare reports and publications.

Emoluments: - Rs. 47000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 40 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

5. Project title: Engineering the Natural Chemical Defense of Banana: A Step towards Sustainable Production. (NABI Core)

Principal Investigator: Dr. Panneerselvam Krishna Murthy, Scientist-D

I. Junior Research Fellow (One position)

Essential Qualifications: -

- 1. Post Graduate Degree in Basic Science OR Graduate/Post Graduate Degree in professional course selected through a process described through any one of the following: -
- a. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship), GATE and GPAT
- 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.

Duration: The appointment will be initially for two years as JRF. Further up-gradation from JRF to SRF will be on the basis of the submission of a progress report and further assessment.

Desirable Experience: General plant molecular biology related techniques such as cloning and qPCR, Plant tissue culture, and HPLC

Responsibilities:

- 1. Development of embryogenic cell suspension (ECS)
- 2. Phenylphenalenone profiling and quantification in HPLC
- 3. Gene function characterization

Emoluments: - Rs. 31000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 28 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

II. Research Associate-I (One position)

Essential Qualification: - Ph.D/MD/MS/MDS or equivalent degree or having 3 years of research, teaching, and design and development experience after MVSc/M.Pharm/ME/M.Tech with at least one research papers in Science Citation indexed (SCI) journal.

Duration: The RA fellowship is a purely temporary assignment and is tenable for a period of 1 year only, and in exceptional cases, depending upon the progress of the research, the performance, the committee may recommend the up-gradation of RA Levels.

Desirable Experience:

- 1. Experience in plant tissue culture, embryogenic cell suspension (ECS) development and maintenance; *Agrobacterium*-mediated ECS transformation
- 2. General plant molecular biology related techniques such as cloning and qPCR
- 3. Genome editing
- 4. Experience in banana tissue culture would be an advantage
- 5. Relevant research publications in peer-reviewed journals.

Responsibilities: Recruited RA will work on the interface of biology, chemistry, and bioinformatics, CRISPR/cas9 gene editing, functional characterization of banana genes, and development of a new editing platform for banana.

Emoluments: - Rs. 47000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 40 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

6. Project title: Identification and characterization of stress and nutrition associated genes in banana. (NABI Core)

Principal Investigator: Dr. Sanjana Negi, Scientist-C

I. Junior Research Fellow (One position)

Essential Qualifications: -

- 1. Post Graduate Degree in Basic Science OR Graduate/Post Graduate Degree in professional course selected through a process described through any one of the following: -
- a. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship), GATE and GPAT
- 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.

Duration: The appointment will be initially for two years as JRF. Further up-gradation from JRF to SRF will be on the basis of the submission of a progress report and further assessment.

Desirable Experience: General plant molecular biology related techniques such as cloning and qPCR, plant tissue culture, transformation of bacteria and plants.

Responsibilities:

- 1. Plant tissue/cell culture and generation of recombinant vectors
- 2. Generation of transgenic lines and their analysis
- 3. Phenotypic/Bio-chemical/Molecular analysis of plants.

Emoluments: - Rs. 31000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 28 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

II. Research Associate-I (One position)

Essential Qualification: - Ph.D/MD/MS/MDS or equivalent degree or having 3 years of research, teaching, and design and development experience after MVSc/M.Pharm/ME/M.Tech with at least one research papers in Science Citation indexed (SCI) journal.

Duration: The RA fellowship is a purely temporary assignment and is tenable for a period of 1 year only, and in exceptional cases, depending upon the progress of the research, the performance, the committee may recommend the up-gradation of RA Levels.

Desirable Experience:

- 1. Candidate should have experience in handling genetic engineering experiments including generation of transgenic plants and analysis of transgenic lines for desired phenotypic and biochemical alterations.
- 2. Candidates having experience in RNAseq data analysis are encouraged to apply.
- 3. Relevant research publications in peer-reviewed journals.

Responsibilities: Selected candidate will have to work on identification of candidate genes and characterize them through molecular and transgenic approaches. Candidate will also have to work and collect samples from field, prepare reports, presentations, reviews and manuscripts.

Emoluments: - Rs. 47000/- per month plus HRA (As per DST OM No.SR/S9/Z08/2018 dated 30.01.2019)

Age limit: - 40 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates 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 17.03.2023 at 09:00 A.M. along with the duly filled application form available on the website 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 **17.03.2023**.
- 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