**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-14 (I)**

**Walk-In-Interview for temporary positions of Junior Research Fellow, Research Associate - I and Project Associate - I**

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. Name of project:** "**Functional analysis of iron homeostasis genes using genome editing” (NABI-CORE)**

**Research Position (temporary) and number:** Research Associate –I - One

**Duration:** 2 years

**Essential qualification:** PhD in any branch of life sciences (if degree is awaited proof for provisional degree has to be submitted)

**Experience:** Plant Molecular biology and experience in Cloning and transformation for genome editing constructs, plant tissue culture in wheat or polyploidy crops. Acquaintance with the Basic Bioinformatics expected.

**Emolument:** Rs.58,000/-month + HRA, depending on years of experience. RA Emoluments and Eligibility conditions are as per DST OM: DST/PCPM/Z-06/2022 dated June 26, 2023;

**Age limit:** 40 year for RA

**2. Name of the Project:** “**Elucidating the Genetic Architecture of tillering in wheat through CRISPR/CAS based editing of Ideal Plant Architecture gene IPA1 and Teosinte Branched 1 (TB1)” (GAP49)**

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

**Duration:** This is an ongoing project so the appointment will be initially for a period of one year and further extension will be on the availability of the GAP49 manpower funds. Up-gradation from JRF to SRF will be on the basis of the submission of a progress report and further assessment.

**Essential qualifications:** - Postgraduate degree in Basic Science or Graduate/Post Graduate in the professional course 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)

**Experience:** Plant Molecular biology and experience in yeast biology, cloning and transformation for genome editing constructs, plant tissue culture in wheat or polyploidy crops.

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. Desirable qualifications: - Proven experience in agricultural biotechnology and molecular biology, especially in area of basic molecular biology and experience in basic bioinformatics tools. Age limit: 28 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

**Emoluments:** Rs.31000/- per month Plus HRA.

**3. Project title: Unravelling the molecular roles of Rice Seed-expressed bZIP (RISBZs) Transcription Factors using genome editing approach. (GAP-66)**

**Principal Investigator: Dr. Prafull Salvi, Scientist-C**

1. **Junior Research Fellow (JRF) (One position)**

**Essential Qualification:** -

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: -
2. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship) and GATE
3. 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 one year. Further up-gradation will be on the basis of the submission of a progress report and further assessment.

**Job Profile:** The selected candidate will be involved in a project aimed at comprehending the significance of molecular determinants and associated pathways focusing on enhancing seed vigour and stress tolerance response for crop improvement.

**Desirable Experience:**

1. Strong molecular and cell biology expertise relevant to the current project.
2. Prior experience in molecular biology and plant tissue culture.
3. Experience in CRISPR/Cas genome editing system.
4. Experience in protein-protein interaction (Y2H, Co-IP, etc) will be preferred.

**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)

Interested applicants are encouraged to reach out to PI (Dr. Prafull Salvi, ScientistC, at [prafull.salvi@nabi.res.in](mailto:prafull.salvi@nabi.res.in) or [salvi.prafull@gmail.com](mailto:salvi.prafull@gmail.com)) for informal inquiries regarding the project and to engage in discussions about their prospective roles.

**4. Project Title: “Deciphering the role of transsulfuration pathway (TSP) in innate immune response” (Own Fellowship)**

**Principal Investigator:** Dr Mohit Kumar, Scientist-C

**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:

1. To use mono and co-culture *in-vitro* infection models to examine the role of TSP in immune-immune and neuro-immune cross-talk.
2. To perform pharmacological or genetic approaches such as enzyme inhibitors, RNAi, CRISPR-Cas9 or AAV to modulate TSP in immune cells and perform downstream assays such as ELISA, phagocytosis assay, western blot and RT-PCR.
3. To perform brain-targeted drug/RNAi/AAV delivery targeting cell-specific TSP using a stereotaxic technique and perform behavioral assays in mice models of infection-induced depression, anxiety and cognitive deficits.
4. To look into the transcriptome profiling of the immune cells especially macrophages and brain resident microglia isolated from the rodent models.
5. To screen broccoli microgreen water extract for its potential to modulate TSP, macrophages and microglial immune response against infection.

**Essential Qualifications:**

i) Postgraduate 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:** Immunology, Biochemistry, Biotechnology, Molecular Biology, Neuroscience

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

Interested applicants are encouraged to reach out to PI (Dr. Mohit Kumar, Scientist C, at mohit.ku@nabi.res.in) for informal inquiries regarding the project and to engage in discussions about their prospective roles.

**5. Project title: “****Delineating the role of citrus peel polymethoxyflavones and their nanoformulations on modulating gut microbiome and inhibiting colorectal cancer progression” (Sanctioned by SERB-India).**

**Principal Investigator:** Dr. Shivraj Hariram Nile, Scientist-C

1. **Project Associate-I (One position)**

**Essential Qualification:** -

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: -
2. Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship) and GATE
3. 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 one year. Further continuation or up-gradation will be on the basis of the submission of a progress report and further assessment.

**Job Profile:** The selected candidate will be involved in a project aimed to check the role of citrus peel polymethoxyflavones and their nanoformulations on modulating gut microbiome and inhibiting colorectal cancer progression. He/she should have experience on extraction and analysis of food bioactive compounds, hands on *in vitro* biochemical assays and animal models, handling of microbial sampling and analysis, experience in nanomaterial synthesis and digestion models.

**Responsibilities:**

1. Expertise on chromatographic and spectroscopic identification of functional compounds.

2. Development of bioactive compound based-nanomaterials and determination of their chemical and physical properties.

3. Bioactivity analysis using *in vitro, in vivo* and *in silico* models for colon cancer and techniques related to gut microbiome analysis.

4. Hands on cancer cells assays, PCR, HPTLC, HPLC, Electrophoresis, protein extraction and characterization, Microbial sample analysis, etc.

**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)

**Contact Details: -** Project Investigator: Dr. Shivraj Hariram Nile, Scientist C, Email: - [shivraj.nile@nabi.res.in](mailto:shivraj.nile@nabi.res.in); Contact no. 0172-5221265

**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 **01-03-2024** **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 01-03-2024.**

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.

13. In case of special circumstances, online interviews may be conducted for candidates upon due request from the candidate(s) well in advance. However, the final decision will be taken by the selection committee to ascertain the special circumstances and allow the candidate (s) for an online interview. The Institute reserves the right to conduct the interview in online/offline mode.

**(Manager Administration)**