**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)/2023-24/ACAD-15**

**Walk-In-Interview for temporary positions of Junior Research Fellow, Senior Research Fellow, Project Research Scientist, Project Technical Assistant-II**

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.**

**Project Title:** “Nutritional enrichment of plants by using modern biotechnological approaches” (own fellowship)

**Principle Investigator:** Dr. Siddharth Tiwari, Scientist F

**Position:** Junior Research Fellow (01) having own funding fellowship

**Funding Agency:** Own fellowship

**Duration:** 5 years

**Essential Qualification:**

a) MSc/ MTech in any area of life sciences or an equivalent degree.

b) 55% total marks or equivalent score in the qualifying degree (5% relaxation in marks will be given to SC/ST/OBC(non-creamy layer)/PWD as per GOI norms)

c) In addition to the above, candidates applying for admission must qualify a national-level test for pursuing the Doctor of Philosophy program. Such tests include doctoral fellowship or admission eligibility tests conducted at the national level by recognized government agencies, such as the University Grants Commission (UGC), Council for Scientific and Industrial Research (CSIR), Indian Council for Medical Research (ICMR), Department of Science and Technology (DST), Department of Biotechnology (DBT), or any other government-recognized agency.

**Desirable Experience:**

Theoretical and general practical understanding of plant molecular biology-related techniques such as cloning and qPCR and Plant tissue culture

**Responsibilities:**

1. Development of new tools and techniques for genetic engineering of plants

2. Establishment of plant tissue culture and genetic transformation protocols.

3. Implementation of genetic engineering approach for specific trait improvement

4. Functional characterization of genes and genetically engineered plants

**Age:** 28 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

**Emoluments:** The selected student should have his/ her own fellowship from any of the recognized granting agencies

**Contact Details:** Project Investigator: Dr. Siddharth Tiwari, Scientist F Email: - siddharth@nabi.res.in; Contact no. 0172-5221138

**2. Project Title:** “**Improvement of oil quality in Indian oil seed mustard using genome editing**. (NABI Core)

**Principle Investigator:** Dr. Rupam Kumar Bhunia, Scientist-E

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

**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.

**Essential Qualification:**

1. MSc/ M.Tech in Botany/Biotechnology/Biochemistry/Agriculture
2. 55% total marks or equivalent score in the qualifying degree (5% relaxation in marks will be given to SC/ST/OBC(non-creamy layer)/PWD as per GOI norms)
3. In addition to the above, candidates applying for admission must qualify a national-level test for pursuing the Doctor of Philosophy program. Such tests include doctoral fellowship or admission eligibility tests conducted at the national level by recognized government agencies, such as the University Grants Commission (UGC), Council for Scientific and Industrial Research (CSIR), Indian Council for Medical Research (ICMR), Department of Science and Technology (DST), Department of Biotechnology (DBT), or any other government-recognized agency.

**Desirable Experience:**

General plant molecular biology and plant tissue culture related techniques.

**Responsibilities:**

1. Expression and functional analysis of lipid metabolic pathway gene(s) in Indian oil seed mustard

2. Editing of key lipid metabolic pathway gene(s)

3. Transformation and tissue culture in Indian oil seed mustard

**Age:** 28 years (Relaxation is admissible in the case of SC/ST/OBC/PD and women candidates as per GOI instructions)

**Emoluments:** Rs. 37000/- per month Plus HRA.

**Contact details:** Dr. Rupam Kumar Bhunia, Scientist-E, NABI, India
**Email:** rupam.bh@nabi.res.in

**3. Project Title: Improvement of rice bran oil shelf-stability using genome editing** **(NABI Core)**

**Principle Investigator:** Dr. Rupam Kumar Bhunia, Scientist-E

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

**Duration:** The research associate-ship is a purely temporary assignment and is tenable for a period of 2 (two) year. The performance of the selected candidate will be evaluated after 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 PI.

**Essential Qualification: -** 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: - Scholars who are selected through National Eligibility Tests-CSIR-UGC-NET including Lectureship (Assistant Professorship) and GATE Additionally, candidate will be eligible for interview if they have qualified National Level examinations conducted by central government departments and their agencies and institutions such as DST, DBT, DAE, DOS, DRDO, MHRD, ICAR, ICMR, IIT, etc.

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

**Desirable: -** 1. Experience in molecular biology, genome editing, GC, GC-MS.

 2. Expertise in rice tissue culture techniques will be given preference.

 3. Relevant research publications in peer-reviewed journals.

**Responsibilities:**

1. Editing of key genes involved in rice bran oil degradation

2. Transformation and tissue culture in rice

3. Screening of edited rice lines

**Emoluments:** Rs. 42000/- per month Plus HRA as per project.

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

**Contact details:** Dr. Rupam Kumar Bhunia, Scientist-E, NABI, India
**Email:** rupam.bh@nabi.res.in

**4. Name of project:** "**Gut Bacterial Metabolism of Selected Plant Polysaccharides Using Genomic, Transcriptomic and Proteomic Approaches” (NABI-CORE)**

**Research Position (temporary) and number:** Senior Research Fellow (SRF); **ONE POSITION**

**Duration:** 2 yearsorco-terminus with the project or whichever is earlier

**Funding Agency:** NABI CORE Grant

**Objectives of the project: -**

1. Evaluation of bacterial metabolism of plant polysaccharides using anaerobic batch fermentations.

2. Genomics, transcriptomic and proteomics studies of the bacteria grown in various plant polysaccharides.

**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: -

a. Scholars who 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.

 2. Two years of research experience.

3. Essential eligibility criteria, Salary and other benefits as per the Office Memorandum DST/PCPM/Z-06/2022 (E-file-41804) dated June 26, 2023, Department of Science and Technology, Ministry of Science and Technology. Other rules and benefits as per NABI rule.

**Desirable Experience:** Demonstrated working experience in the area of microbiology especially in the cultivation of anaerobic bacteria; identification and characterization of the anaerobic bacteria; physiology of bacteria; experience in handling animal and human cell lines, HPLC, and other molecular biology techniques.

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

**Remuneration** and other conditions**:** Rs. 42000/- per month Plus HRA as per OM: DST/PCPM/Z-06/2022 (E-file-41804) dated June 26, 2023, Department of Science and Technology, Ministry of Science and Technology Government of India.

**Contact Details: -** Project Investigator: Dr. Kanthi Kiran Kondepudi, Scientist E

Email: - kiran@nabi.res.in; Contact no. 0172-5221246

**5. Project title: “**Translating TRPM8 mediated pharmacological cold mimicking for the therapeutics of Diabesity**”** under the Investigator Initiated Research Proposals scheme, with Sanction No. EMDR/IG/13/2023-0640 **(Sanctioned by ICMR-India).**

**Position:** Project Research Scientist - I (Non-medical)

**Number of positions: Two (02)**

**Essential Qualification:**

1. First Class Post Graduate Degree, including the integrated PG degrees. OR
2. Second Class Post Graduate Degree, including the integrated PG degrees with PhD. OR
3. For Engineering / IT / CS – First Class Graduate Degree of Four Years.
4. Research experience of more than 1 year.

**Desirable:**

1. Prior experience of in-vivo (mice) and in vitro (cell culture) model systems in the field of obesity, type-2 diabetes or neuroscience.
2. Knowledge Molecular biology techniques including gene expression, immunohistochemistry, immunocytochemistry etc.
3. Understanding of analytical techniques such as HPLC 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 of the performance of candidates.

**Job Profile:** The selected candidate will be involved in a project aimed at exploring pharmacological cold mimicking, through oral and topical menthol application, to increase cold sensitivity and sympathetic innervation, and thereby adaptive thermogenesis, fuel utilization and lipolysis in brown and white adipose tissues. This project will use both *in-vivo* and *in-vitro* models.

**Emoluments: -** Rs. 56000/- per month plus HRA (As per ICMR sanction letter EMDG/IG/13/2023-0640)

**Age limit: -** 35 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

**Principal Investigator:** Mahendra Bishnoi, Scientist-E; Email:- mbishnoi@nabi.res.in; mbishnoi@gmail.com ; Contact no. 0172-5221261

**6. Project title: “**“To Investigate the Role of Endocannabinoids in Gut-Brain Axis and Differential Role of Cannabinoid Receptors in the Development of Metabolic Dysfunction” under the Investigator Initiated Research Proposals scheme, with Sanction No. ICMR/16/1990/SGP-2023. **(Sanctioned by ICMR-India).**

**Position:** Project Technical Assistant - III (Non-medical)

**Number of positions:** **One (01)**

**Essential Qualification:**

1. First Class Post Graduate Degree, including the integrated PG degrees. OR
2. Second Class Post Graduate Degree, including the integrated PG degrees with PhD. OR
3. For Engineering / IT / CS – First Class Graduate Degree of Four Years.

**Desirable:**

1. Prior experience of in-vivo (mice) and in vitro (cell culture) model systems in the field of obesity, type-2 diabetes or neuroscience.
2. Knowledge Molecular biology techniques including gene expression, immunohistochemistry, immunocytochemistry etc.
3. Research experience of more than 1 year.
4. Understanding of analytical techniques such as HPLC 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 of the performance of candidates.

**Job Profile:** The selected candidate will be involved in a project aimed at understanding the role of cannabinoid receptor system and endocannabinoids in metabolic dysfunction especially, leptin resistance. This project will use both *in-vivo* and *in-vitro* models.

**Emoluments: -** Rs. 28000/- per month plus HRA (As per ICMR sanction letter Sanction No. ICMR/16/1990/SGP-2023)

**Age limit: -** 35 Years (Relaxation is admissible in case of SC/ST/OBC/PD as per GOI Instructions)

**Principal Investigator:** Mahendra Bishnoi, Scientist-E; Email:- mbishnoi@nabi.res.in; mbishnoi@gmail.com ; Contact no. 0172-5221261

**7. Examining the Therapeutic Potential of Hydrogels Loaded with Exosomes Derived from Ginger for the Management of Diabetes**

**Principal Investigator:** Dr Nitin Kumar Singhal , Scientist-E

**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:

Exosomes generated from ginger extract are extracted, and methods such as electron microscopy and nanoparticle tracking analysis are used to isolate and characterise the resulting exosomes. Formulating hydrogels suited for encapsulation and optimising composition and loading efficiency are necessary steps in developing exosome-loaded hydrogels. Examining cellular absorption and assessing biocompatibility using cell viability tests are examples of in vitro assessment. In preclinical research, diabetic animal models are created, and exosome-loaded hydrogels are given. Complications and glucose levels are tracked to assess the effectiveness of the treatment. Mechanistic research investigates molecular pathways; data analysis directs interpretation for possible therapeutic uses; findings are published, presented, and collaborated with pertinent parties.

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 CSIR/UGC-NET, DBT-NET (Own Fellowship), Inspire Fellowship etc

**Desirable qualifications**: Proven experience in Biochemistry/biotechnology/Nanoscience, especially in synthesis characterization of material, in vivo and in vitro studies experience

Area of research: Bioorganic chemistry, Biotechnology, Biochemistry, Nanotechnology

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 **27-03-2024** **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 27-03-2024.**

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.

 **(Manager Administration)**