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(9)/2022-23/ACAD-09

Interview for the Positions of Research Associates and Field Assistants

National Agri-Food Biotechnology Institute (NABI) is an autonomous Institute under Department of Biotechnology, Government of India. NABI aims at catalysing the transformation of 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 the Bio fortification, development of designer crops for improved nutrition, providing sustainable and novel solutions towards quality food and nutrition, and development of evidence based functional foods to counter malnutrition. NABI requires following research personnel purely on temporary basis.

1. Name of project: "Combating "hidden hunger" through development of EMS induced mutants with altered lysine content or amino acid composition in Rice"

Principal Investigator: Prof. Ashwani Pareek, Executive Director

Research Positions (temporary) and number:
Research Associate-I (RA-I) - One
Field Assistant (FA) - Two

Duration: 3 years till completion date i.e. 04/09/2026

Project Summary:
Development of high lysine protein is highly essential to eradicate malnutrition, particularly from the areas having a rice-based diet. The rice consumers represent a large portion of the world population, where malnutrition is becoming a significant problem. The malnutrition problem needs urgent attention to avoid widespread losses related to human health. High lysine protein rice will be life saving for children's starving due to inadequate protein in the diet.

In plant biology research, different mutagenesis approaches have been used to identify novel genes and their functional regulations. The most commonly used mutagenesis approaches include chemicals, ionizing radiations, antisense RNA, and T-DNA insertion. Ethyl Methane Sulfonate (EMS) is the most commonly used alkylating agent for creating a mutagenized population. Use of mutagenesis approaches for the enhancement of nutritional quality in rice looks highly promising. Development of the mutant population in a background of different leading varieties is relatively much more comfortable than the phenotypic screening of large mutant populations. In this proposal, we aim to achieve enhancement of nutritional quality-related traits like high lysine content in rice grain. In addition, the developed mutant population will serve as a resource for the rice research community.

Manpower details and responsibility:

Manpower*	Essential qualification	Experience	Emolument (Rs.)	Responsibility
Research Associate-I	PhD in any branch of life sciences	Experience in agricultural biotechnology such as in marker development, QTL mapping, Association mapping, **Other experiences:** 1. Molecular biology, analytical techniques such as HPLC, etc 2. At least one research paper in Science Citation Indexed (SCI) journal.	Rs.47,000/- fixed/month + HRA	1. Development of EMS mutant population in rice; 2. Screening of the mutant population for amino acids such as lysine and grain protein content and their estimation using analytical methods 3. Measurement of yield related traits and physiologica parameters such as chlorophyll content, net photosynthetic rate, stomatal conductance, internal CO2 concentration, quantum yield of photosystem-II etc. will be measured 4. Preparation of progress report, indent, manuscripts, etc
Field Assistant	B.Sc. in biological sciences or equivalent degree with at least 6 months research experience in conducting field-based studies	Field and lab work	Rs.20,000/- fixed/month + HRA	Extensive field and laboratory works including data scoring, extraction, etc.

*RA Emoluments and Eligibility conditions are as per DST OM: SR/S9/Z-08/2018 dated January 30, 2019; Field Assistant emoluments as per DST OM: SR/S9/Z-05?2019 dated August 21, 2019

Age limit: 40 year for RA; 50 year for FA (Relaxation is admissible in case of SC/ST/OBC/ PD/EWS as per GOI instructions)

2. Name of project: "Gene- and base-editing in rice for stress tolerance and enhanced nutrition." (NABI's Core)

Principal Investigator: Prof. Ashwani Pareek, Executive Director

Research Positions (temporary) and number: Research Associate (RA) - One

Duration: 2 years

Essential qualification : PhD in any branch of life sciences

Experience: Plant Molecular biology and experience in Cloning and transformation

Emolument: Rs.58,000/- to 67,000/-/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;

Responsibility: Gene and base-editing in rice

Age limit: 40 year for RA

Application and Selection Process:

1. All interested candidates should submit the soft copy of the filled application form, all educational mark certificates (Xth, XIIth, undergraduate & post-graduate), and other required documents (as mentioned above) by email (recttscholarnabi@gmail.com). The last date for receiving the application is 20th October 2023.The application form is available on the website www.nabi.res.in.

2. The short listed candidates for interview will be informed by email.

3. The short-listed candidates are requested to appear for the interview with the original copy of the original degree certificates and transcripts, thesis/project report, publications, etc.

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

5. The selected candidate will be informed by e-mail and the result will be uploaded on the NABI's website.