



NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE (NABI)

(Dept. of Biotechnology, Ministry of Science & Technology, Govt. of India)
C-127, Industrial Area, Phase VIII, S.A.S. Nagar, Mohali-160 071.(Pb), INDIA
Website: www.nabi.res.in Tel: 0172-4990300

Advt no. 2014-Researcher/ (2)

Junior Research Fellow

Advertisement for Junior Research Fellowship/Project assistant

National Agri-Food Biotechnology Institute (NABI), Mohali, is an autonomous R&D Institute under the Department of Biotechnology, Government of India. The institute carries out cutting edge research at the interface of food, nutrition and agricultural biotechnology.

Applications are invited for the position of a Junior Research Fellow (JRF) under a DST sponsored research project in the **Agricultural Biotechnology Research Programme** at NABI.

Project Title: “Chromosome specific wide hybridisation for improvement of bread making quality of wheat” Dairy No. SERB/F/5545/2013-14.

Principle Investigator: Dr. Monika Garg

Sponsoring agency: Science & Engineering Research Board (SERB), Department of Science & Technology, Government of India.

ripening

Position available: 01 (One)

Duration: The appointment will be for 3 years or till the termination of the project, and subject to annual review for further extension that will be granted based on the research progress and accomplishments.

Objective: India is a vast country with second largest population in the world. Wheat is one of the most important crops and staple food. Extensive wheat research in India has developed cultivars with enhanced yield potential and high disease resistance which has led to green revolution in the country. In India wheat is mainly consumed in the form of flat bread i.e. Chapatti and Naan. With the recent economic growth and change in the life style, the demand for convenience food product i.e. bread, which require specific flour quality, has increased significantly (>5% per annum). In addition the consumer is becoming more and more quality conscious. The quality products can only be produced when you have the raw material with all the desirable qualities. However, Indian wheat cultivars do not meet the requirements for good bread making quality.

Generally due to undesirable combination of gluten proteins in Indian wheat's, they have low elasticity and extensibility, which make them unsuitable for bread making (Singh 2001). Wheat has limited variation in terms of HMW-GS alleles. Domestication of wheat, about 10,000 years ago has led to stockpile of genes that led to high productivity under cultivated conditions. But this is built at the cost of deterioration of genetic variability leading to very narrow genetic base of present cultivars. Wild species of wheat are important source of genetic variation. Potential of wild species for bread making quality improvement can be best utilized, if transferred to specific chromosomes, with least contribution towards bread making quality, such as chromosome 1A of the wheat. In the present project we want to replace HMW-GSs coded by chromosome 1A of wheat with good quality HMW-GS genes from selected wild species of wheat by creating chromosome specific translocation lines with improved bread making quality, molecular cytogenetic characterization of translocation lines and transfer of desired translocation to high yielding Indian regional wheat cultivars

Essential qualifications: First class M.Sc. having passed NET (CSIR/UGC)/ NET (LS) or M.Tech. in life sciences (Agriculture, Biotechnology, Food technology, and related areas) for JRF.

First class M.Sc. in life sciences (Agriculture, Biotechnology, Food technology, and related areas) for Project Assistant.

Desirable qualifications:

1. CSIR/UGC/DBT/ICAR/ICMR JRF fellowship
2. Prior research or training experience in Agricultural biotechnology
3. Skills and knowledge of plant molecular biology.

Emoluments: The JRF will be hired as per the emoluments' guidelines and service conditions notified by DST (A.20020/11/97-IFD dated 31st March, 2010). Maximum limit will be 16000/- plus HRA (@20%) for first two years and 18000 plus HRA for third year.

Age Limit: The age limit of applicants for the fellows will be 30 years (relaxable by 5 years for women and reserved category).

Application and selection process: All interested candidates may appear for a walk-in-interview at NABI Interim Facility located at C-127, Industrial Area, Phase VIII, Ajitgarh (Mohali), Punjab, on **08.01.2014** at 10.00 am along with duly filled application form available on the website www.nabi.res.in. Further, interested candidates should also send the softcopy of the application form to monikagarg@nabi.res.in on or before **04.01.2014**. The duly filled application form must be submitted at the time of registration at NABI-reception desk from 0900 Hrs to 1000 Hrs on **08.01.2014**. The candidates must ascertain their eligibility before applying, as ineligible candidates would not be interviewed. All the candidates are requested to appear for the interview with the full CV, thesis/project report, publications and original degree certificates and transcripts. No TA/DA will be paid for appearing in the interview. Candidates will be encouraged to register for PhD.