



NATIONAL BOTANICAL RESEARCH INSTITUTE

(Council of Scientific & Industrial Research)

Rana Pratap Marg, Lucknow-226001

ADVERTISEMENT NO. 1/2009

Advertisement for Gr. IV Scientific & Gr. III Technical posts (including backlog reserved vacancies of SC/ST)

[Last date for receipt of completed application forms in this Institute :- 25.05.2009]

National Botanical Research Institute (NBRI), Lucknow, a premier plant science research institute under Council of Scientific & Industrial Research (CSIR), is looking for professionals having brilliant academic record and zeal for innovative research. Applications are invited in the prescribed form from Indian Nationals for the following positions to undertake basic and applied research in respective disciplines/areas:-

1. Scientist Group IV(4): One Post; [Unreserved]; Scale of Pay: Rs. 37400-67000 (PB-4) with Grade Pay Rs.8700 (T.E.= Approx. Rs. 72132/-p.m.)

Upper age Limit: Not exceeding 45 years

Post Code : S-01; **Area:** Secondary Metabolism

Essential Qualification: First class M.Sc. or equivalent qualifications in Biochemistry/Plant Physiology/Botany/ Life Sciences/ Organic Chemistry with 10 years or Ph.D. with 07 years research experience in secondary plant metabolism as evidenced by high quality research publications in desired area of research.

Desirable Qualification: Ph.D. with path breaking research publications in secondary plant metabolism pathways-steroids, terpenes, alkaloids, enzymes, gums, resins across plant taxa in high impact factor journals.

Job Requirement: To lead and catalyze innovative research activities on industrially important plant species for secondary metabolites, valuable compounds and metabolic engineering.

2. Scientist Group IV(3): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.7600 (T.E.= Approx. Rs. 38240/-p.m.)

Upper age Limit: Not exceeding 40 years

Post Code : S-02; **Area:** Plant Genetics/ Tree Genetics

Essential Qualification: First class M.Sc. or equivalent qualifications in Botany/Plant Sciences/Forestry/M.Sc.(Ag.) in Genetics and Plant Breeding with specialization in Tree Genetics /Tree Breeding with 07 years of research experience or Ph. D. in Tree genetics with 04 years of research experience in forest diversity and tree genetics as evidenced by high quality research publications.

Desirable Qualification: Ph.D. in Genetics and Plant Breeding/Tree Genetics/Genomic diversity of trees with high impact research publications.

Job Requirement: To develop innovative programmes to identify elite germplasm of tree species through establishment of arboretum /seed orchard/clonal orchard, breeding and molecular approaches to develop improved varieties with desirable traits.

3. Scientist Group IV(3): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.7600 (T.E.= Approx. Rs. 38240/-p.m.)

Upper age Limit: Not exceeding 40 years

Post Code : S-03; **Area:** Plant Molecular Biology

Essential Qualification: First class M.Sc. or equivalent qualifications in Biotechnology/Molecular Biology/Plant Sciences/ Botany/Biochemistry with 07 years research experience or Ph.D. with 04 years research experience in the aforesaid areas as evidenced by high quality research publications in high impact factor journals.

Desirable Qualification: Ph.D. in tissue culture and plant transformation, experience in functional genomics, high throughput technologies like microarray, real time gene expression, quantitative allele specific expression, metabolic engineering etc.

Job Requirement: Develop innovative programmes for the development of industrially valuable transgenic plants.

4. Scientist Group IV(3): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.7600 (T.E.= Approx. Rs. 38240/-p.m.)

Upper age Limit: Not exceeding 40 years

Post Code : S-04; **Area:** R&D Business Development*

Essential Qualification: 1st Class MBA from a renowned/prestigious business school with 07 years experience as evidenced by high outcome related to business development in R&D organizations or marketing of knowledge-based products.

Desirable Qualification: Experience in agribiotechnology/natural plant products/biotechnology related R&D based business plan development, execution and marketing, excellent communication skills and experience on data management. Candidates with Masters in Biological Sciences/Agriculture or B.E./B.Tech. in biotechnology/bioinformatics background will be preferred.

Job Requirement: To contribute to the development and growth of technology ventures. Devising and executing business and marketing strategy for knowledge base of the institute. To assist in identifying industrial partners for laboratory for taking up innovations to market, evolving technology partnerships and commercialization proposals.

5. Scientist Group IV(3): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.7600 (T.E.= Approx. Rs. 38240/-p.m.)

Upper age Limit: Not exceeding 40 years

Post Code : S-05; **Area:** Quantitative Genetics

Essential Qualification: First class M.Sc. or equivalent qualifications in Agricultural Genetics/Plant Breeding/Plant Molecular Biology/Biotechnology/Biochemistry/Botany with 07 years research experience or Ph.D. with 04 years research experience in the aforesaid areas as evidenced by high quality publications in high impact factor journals.

Desirable Qualification: Ph.D. in molecular assisted breeding programme of agriculturally important crops, experience with molecular markers like SNPs, DArT, SSR, AFLP etc, QTL and/or association mapping for agronomically important traits, statistical analysis of molecular marker data, genetic map, plant phenotyping, variety development.

Job Requirement: Develop new programmes in crop improvement by breeding, association genetics and molecular markers.

6. Scientist Group IV(2): One Post; [Reserved for OBC]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 38 years (including relaxation of 3-years)

Post Code : S-06; **Area:** Reproductive Biology

Essential Qualification: First class M.Sc. or equivalent qualifications in Botany/Plant Physiology/Plant Sciences/Plant Genetics with 03 years of research experience or Ph.D. with 01 year research experience in reproductive botany as evidenced by high impact factor research publications.

Desirable Qualification: Ph.D. with experience in incompatibility, male sterility, gametogenesis, apomixes, hybrid vigour, polyembryony, cell and tissue differentiation in crop plants.

Job Requirement: To organize research activities along with scientists of conservation botany, plant molecular biology, plant biodiversity towards deciphering the basis of plant reproductive biology, hybrid vigour, threatened plants.

7. Scientist Group IV(2): One Post; [Reserved for OBC]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 38 years (including relaxation of 3-years)

Post Code : S-07; **Area:** Plant Breeding (Floriculture)

Essential Qualification: First class M.Sc. or equivalent qualifications in Plant Breeding/Genetics/Botany/Agriculture Genetics/Horticulture with 03 years research experience or Ph.D. with 01 year research experience in the area of plant breeding and genetics as evidenced by high quality research publications and development of new varieties.

Desirable Qualification: Ph.D. in breeding and improvement of floricultural crops, varietal release and applications of biotechnological tools as evidenced by impact factor publications.

Job Requirement: To work as plant breeder in projects related to genetic improvement of ornamentals using conventional and biotechnological tools.

8. Scientist Group IV(2): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 35 years

Post Code : S-08; **Area:** Lower Plant Botany

Essential Qualification: First class M.Sc. or equivalent qualifications in Botany/Plant Sciences/Biotechnology with 03 years research experience or Ph.D. with 01 year research experience in lower group of plants as evidenced by high quality research publications.

Desirable Qualification: Ph.D. with research experience in reproductive biology, physiology, growth, structural biology of lower plants, preferably bryophytes.

Job Requirement: To undertake research work on developmental/reproductive biology, bioprospecting of lower plants of botanical importance.

9. Scientist Group IV(2): One Post; [Reserved for SC]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 40 years (including relaxation of 5-years)

Post Code : S-09; **Area:** Floriculture

Essential Qualification: First class M.Sc. (Ag.) with specialization in Horticulture/Floriculture or M.Sc. Botany with 03 years research experience or Ph.D. with 01 year research experience in Floriculture/Horticulture as evidenced by high quality research publications and development of new varieties.

Desirable Qualification: Ph.D. with experience in commercially important floricultural crops, their physiology, growth and breeding, experience in protected cultivation of ornamental plants.

Job Requirement: To undertake research work on agrotechnology of floricultural crops and maintenance of germplasm.

10. Scientist Group IV(2): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 35 years

Post Code : S-10; **Area:** Farm Management/Agronomy

Essential Qualification: First class M.Sc (Ag) in Agronomy with 03 years research experience or Ph.D. (Agronomy) with 01 year research experience in farm management, economic land utilization, wasteland management as evidenced by high quality research publications.

Desirable Qualification: Ph.D. with research experience in farm management, agrotechnologies and sodic soil amelioration research.

Job Requirement: To manage farm resources, conduct R&D and land utilization plan of NBRI farm sites. To plan and execute research on conservation, sustainable & economic management of industrially important crops.

11. Scientist Group IV(2): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 35 years

Post Code : S-11; **Area:** Biochemical Pharmacology

Essential Qualification: First class M.D./ M.Vet.Sc./M. Pharm in pharmacology from a recognized university with 02 years research experience or Ph.D. in the aforesaid areas with 01 year research experience in pharmacology as evidenced by high quality research publications.

Desirable Qualification: Ph.D. with research experience of *in vivo* and *in vitro* models for drug development, biochemical and genomic models for phytopharmaceuticals and biomarkers.

Job Requirement: Evaluation of plant based products for efficacy and safety related to drug development.

12. Scientist Group IV(2): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 35 years

Post Code : S-12; **Area:** Prospecting Plants for Proteins and Metabolites

Essential Qualification: First class M.Sc or equivalent qualifications in Biochemistry/ Organic Chemistry /Life Sciences/Botany/Plant Sciences with 03 years experience or Ph.D. with 01 year research experience in prospecting for bioactive molecules, metabolomics and biochemistry as evidenced by high quality research publications.

Desirable Qualification: Ph.D. with research experience in high throughput protein or metabolite analysis, experience with NMR, LC-MS-MS, MALDI-TOF, NMR-imaging of metabolites, protein characterization and plant biochemistry.

Job Requirement: To undertake research programmes on characterization of novel plant proteins or metabolic pathways/compounds using approaches in metabolite identification and pathways.

13. Scientist Group IV(2): One Post; [Reserved for SC (Backlog Vacancy)]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 40 years (including relaxation of 5-years)

Post Code : S-13; **Area:** Conservation Botany

Essential Qualification: First class M.Sc. in Botany/Plant Sciences with 03 years research experience or Ph.D. with 01 year research experience in *ex-situ* conservation/ propagation/multiplication/plant systematics as evidenced by high quality research publications.

Desirable Qualification: Ph.D. with research experience in germplasm documentation, conservation, propagation and preservation of plant wealth in conservatories and controlled climate conditions.

Job Requirement: To organize germplasm collection of endemic, RET plant species, their conservation and propagation.

14. Scientist Group IV(2): One Post; [Reserved for SC-PWD (PH-OH)]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 36760/-p.m.)

Upper age Limit: Not exceeding 45 years (including relaxation of 5-years for SC plus 5 years for PWD)

Post Code : S-14; **Area:** Botany/Plant Physiology

Essential Qualification: First class M.Sc. or equivalent qualifications in Botany/Plant Physiology/Biochemistry/Plant Sciences/Biotechnology with 3 years research experience or Ph.D. with 01 year research experience in Plant Physiology, Plant Sciences as evidenced by high quality research publications.

Desirable Qualification: Ph.D. with research experience in Plant Systematics, Plant Physiology, Plant elemental analysis, instruments etc.

Job Requirement: Laboratory and field studies on plants.

15. Scientist Group IV(1): One Post; [Reserved for OBC]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.5400 (T.E.= Approx. Rs. 33724/-p.m.)

Upper age Limit: Not exceeding 38 years (including relaxation of 3-years)

Post Code : S-15; **Area:** Horticulture/Landscaping

Essential Qualification: First class M.Sc (Horticulture) / M.Sc. (Ag.) specialization in Horticulture or Ph.D. in Horticulture

Desirable Qualification: Experience in ornamental crops and landscaping with high quality research publications.

Job Requirement: Maintenance of Botanic Garden, germplasm collections of ornamental crops, undertake research work on development of novel varieties of ornamentals, field experiments, preparation of landscape plans/drawings/designs.

16. Scientist Group IV(1): One Post; [Reserved for SC]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.5400 (T.E.= Approx. Rs. 33724/-p.m.)

Upper age Limit: Not exceeding 40 years (including relaxation of 5-years)

Post Code : S-16; **Area:** Plant Taxonomy

Essential Qualification: First class M.Sc. in Botany/Plant Sciences or Ph.D in Plant Taxonomy and Biosystematics.

Desirable Qualification: Ph.D. with research experience in plant taxonomy/biosystematics/population biology/floral diversity/genetic diversity/herbarium, computer applications for digitized documentation as evidenced by high quality research publication.

Job Requirement: To carry out plant diversity exploration, biosystematics studies, documentation and maintenance of germplasm/herbarium.

17. Scientist Group IV(1): One Post; [Reserved for OBC]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.5400 (T.E.= Approx. Rs. 33724/-p.m.)

Upper age Limit: Not exceeding 38 years (including relaxation of 3-years)

Post Code : S-17; **Area:** Biodiversity Conservation

Essential Qualification: First class M.Sc in Botany/ Plant Sciences or Ph.D. in Plant Diversity Assessment .

Desirable Qualification: Ph.D. with research experience in plant conservation, population ecology and genetics. Knowledge of the basic tenets of biodiversity, conservation biology and population ecology is also desirable as evidenced by high quality research publications in aforesaid areas.

Job Requirement: To carry out advanced research in the area of plant biodiversity and conservation, mechanisms of plant speciation, adaptive biology, and *ex-situ* conservation.

18. Technical Group III(5): One Post; [Unreserved]; Scale of Pay: Rs. 15600-39100 (PB-3) with Grade Pay Rs.6600 (T.E.= Approx. Rs. 35428/-p.m.)

Upper age Limit: Not exceeding 40 years

Post Code : T-01; **Area:** Biostatistics

Essential Qualification: M.Sc. or equivalent qualifications in statistics with minimum 55 per cent marks and 09 years of experience or first class Diploma in Statistics of three years full time duration with 12 years of experience.

Desirable Qualification: Experience in computational statistical analysis of biological data, packages like SAS programming supported by quality publications.

Job Requirement: Analysis of data on genetic segregation, yield and performance parameters in plants.

19. Technical Group III(1): Two posts; [Reserved for SC]; Scale of Pay: Rs 9300-34800 (PB-2) with Grade Pay Rs.4200 (T.E.= Approx. Rs. 21122/-p.m.)

Upper age Limit: Not exceeding 33 years (including relaxation of 5-years for SC candidates)

Post Code : T-02 **Area:** Biotechnology/Plant Physiology

Essential Qualification: First class B.Sc. or equivalent qualifications with Botany/Plant Sciences as one of the subjects..

Desirable Qualification: Experience in assisting high quality research in Botany, Plant Physiology, Biochemistry, collection and analysis of data.

20. Technical Group III(1): Two posts; [Reserved for ST (Backlog Vacancies.);] Scale of Pay: Rs 9300-34800 (PB-2) with Grade Pay Rs.4200 (T.E.= Approx. Rs. 21122/-p.m.)

Upper age Limit: Not exceeding 33 years (including relaxation of 5-years for ST candidates)

Post Code : T-03 **Area:** Botanic Garden/Floriculture

Essential Qualification: First class B.Sc. with Botany as one of the subjects or B.Sc. (Ag.)/equivalent qualifications with Horticulture or Floriculture as one of the subjects.

Desirable Qualification: Experience in assisting research in Botany/Floriculture/Plant Conservation/Breeding.

Job Requirement: (For both T-02 & T-03): Assisting R&D staff in laboratory and field works.

General Conditions

1. In addition to the usual pay & allowances as admissible to the council employees, other benefits such as Leave Travel Concession and reimbursement of medical expenses are also available as per rules.
2. All Scientists in Pay Band-3 with Grade Pay of Rs. 6600 & Rs. 7600 and Scientists in Pay Band-4 with Grade Pay of Rs. 8700 will receive 2 additional increments over their normal pay. These increments will not be treated as part of the pay for any purpose and will remain constant during entire period of residency in the grade. Besides, Professional Update Allowance of Rs. 10000/- per annum will be payable to the Scientists in PB-3 (Rs.15600-39100) with Grade Pay of Rs.5400, Rs.6600 and Rs.7600. Similarly Professional Update Allowance of Rs. 20000/- per annum will be payable to the Scientists in PB-4 (Rs.37400-67000) with Grade Pay of Rs.8700. The Professional Update Allowance per annum is additional to the monthly total emoluments (T.E.) mentioned against each Group IV Scientist post.
3. CSIR allows additional income to its scientists through licensing of knowledgebase.
4. Scientists are entitled for career advancement on the basis of Flexible Complementing Scheme of CSIR.
5. Candidates on appointment will be governed by new pension scheme of Central Government effective from 01-01-2004. However candidates working prior to 01-01-2004 in other Departments/Autonomous body/PSU/Central Universities having pension scheme on GOI pattern and applying through proper channel, if selected, will continue to be governed by CCS(Pension) rules, 1972.
6. The date of determining the age/experience/qualifications shall be the closing date of receipts of applications.

7. The qualification prescribed should have been obtained from recognized Universities/Institutions in the areas mentioned against each posts.
8. The period of experience in a discipline/area of work, where prescribed shall be counted after the date of acquiring the minimum prescribed educational qualification for the post.
9. Upper age limit is relaxable up to 5 years for the employees working in CSIR Labs/Government/ Autonomous Bodies/Public Sector Undertakings and for Physically challenged candidates in accordance with the instructions and orders issued by the Govt. of India in this regard.
10. The date for determining the upper age limit and qualification will be reckoned as on **25-05-2009**.
11. The above posts shall carry usual allowances as admissible to Central Government employees, as have been made applicable to CSIR employees of the same status stationed at Lucknow.
12. Relaxation in the upper age limit of 5 years applicable for persons who had ordinarily been domiciled in the Kashmir Division of the State of J&K during the period of 01-01-1980 to 31-12-1989 subject to production of a certificate from the District Magistrate in the Kashmir Division within whose jurisdiction he/she had ordinarily resided or from any other authority designated in this behalf by the Government of J&K to the effect that he/she had ordinarily been domiciled in the Kashmir Division of the state of J&K during the period from 01-01-1980 to 31-12-1989
13. The relaxation in age limit, qualifications and /or experience may be considered only in case of exceptionally meritorious candidates with the approval of the competent authority. Exceptionally meritorious deserving candidates may be considered for higher initial pay by the competent authority.
14. Outstation candidates called for interview will be paid single second class rail fare to and fro by the shortest route from the place of residence/actual departing station in India whichever is nearer to the place of interview.
15. Candidates, who feel that they are eligible for more than one post, should submit separate application for each post along with the application fee.
16. The selected candidates will be posted to any of the establishments of NBRI/CSIR (anywhere in India).
17. Applications from employees of Government Departments, Public Undertakings, Govt. funded research organizations will be considered only if forwarded through proper channel and certified by the employer that the applicant will be relieved within one month of the receipt of the appointment orders, if selected. However, the candidate may submit advance copy of the application before the closing date. Applications routed through proper channel should reach this Institute at the earliest.
18. Candidates should specifically note that the applications not in prescribed proforma or not accompanied with prescribed fees, incomplete application, unsigned, without recent photograph of the candidate, not accompanied with attested copies of educational certificates, marksheets, caste certificate, testimonials, etc or received after prescribed closing date for any reason whatsoever (such as envelopes wrongly addressed, delivered elsewhere, postal delay etc.) will not be entertained by this Institute.
19. Candidates belonging to SC/ST/OBC/PH should enclose a certificate in the prescribed form issued by the competent authority in support of their claim.
20. Any enclosure/information received separately subsequent to the receipt of the application will not be entertained.
21. Mere fulfillment of essential educational qualifications and experience does not entitle a candidate to be called for interview. Where a large number of applications received in response to the advertisement it will not be convenient or possible for the institute to interview all the candidates. The Laboratory shall restrict the number of candidates for interview after scrutiny by the duly constituted Screening Committee to a reasonable limit on the basis of qualification and

- experience etc. The candidates as recommended by the Screening Committee will only be called for interview. The candidate should therefore mention in the application all the qualification and experiences in the relevant field over and above the minimum prescribed qualification supported with documents.
22. *Area of Post Code S-04 is subject to the approval of Competent Authority.
 23. The application has to be submitted only on prescribed proforma. This advertisement along with the application format is available on our website: www.nbri-lko.org/www.nbri.res.in. The application form may be downloaded from the website and used for applying for the above post(s).
 24. Duly filled in application form, complete in all respect along with an application fee in the form of Demand Draft for Rs.100/- (Non-Refundable) drawn in favour of “Director, NBRI” payable at Lucknow and supported by attested copies of certificates of educational qualification, date of birth, experience certificates, community certificate, if any, addressed to the Director, NBRI, Rana Pratap Marg, Lucknow-226001 should reach this office on or before **25-05-2009**.
 25. Candidates who are abroad can pay application fee subsequently. Candidates of Indian origin settled abroad who are of proven merit as evidenced by their research work, if found suitable for the post may be considered by the Selection Committee, *in absentia*, on request.
 26. The candidates belonging to SC/ST/PH category and regular employees of CSIR are exempted from payment of application fee. The envelope containing the application should be superscribed “Application for the post of.....(Post code..... Area)” “. Candidates are advised to send their application by speed post or registered post.
 27. Canvassing in any form or bringing of any influence, political or otherwise, will be treated as a disqualification.
 28. The decision of the NBRI/CSIR in all matters relating to eligibility, acceptance or rejection of applications, mode of selection, and conduct of interview will be final and binding on the candidates and no interim enquiry or correspondence will be entertained in this connection from any individual or agency on behalf of candidate.

Controller of Administration