

# **CENTRE FOR DNA FINGERPRINTING AND DIAGNOSTICS**

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CDFD, an autonomous institute of the Department of Biotechnology, Ministry of Science and Technology, invites applications from Indian nationals for the following purely temporary vacancies in research projects funded by National / International agencies at CDFD like DST/DBT/ICMR/CSIR etc. The description of the positions and minimum qualifications for various vacancies are as follows:

# (1) Project Scientist - III

Age Limit : 45 years

Emoluments : `78,000/-+ 24% HRA

## **Essential Qualifications:**

- (i) Doctoral Degree in Science or Master's Degree in Engineering or Technology from a recognized University or equivalent; and
- (ii) Seven years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organisations and Scientific activities and services

## **Desirable Qualifications:**

- 1. Experience in working on molecular biology techniques, cell cultures, next generation sequencing analysis etc
- 2. Experience of supervising staff/students

## Nature of Duty:

- 1. Overall supervision of laboratory focused on Pediatric rare genetic disorders
- 2. Oversee recruitment of patients with rare diseases via co-ordination with collaborating centres
- 3. Supervise staff for undertaking cell biology and molecular biology experiments
- 4. Preparation of project report/Manuscript writing

## (2) Project Scientist – II

Age Limit : 40 years

Emoluments : `67,000/-+ 24% HRA

## **Essential Qualifications:**

- (i) Doctoral Degree in Science or Master's Degree in Engineering or Technology from a recognized University or equivalent; and
- (ii) Three years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organisations and Scientific activities and services

## **Desirable Qualifications:**

- 1. Experience in working with analysis of next generation sequencing / microarray data from whole exome/genome/transcriptome sequencing
- 2. Experience in development of pipelines for analysis of next generation sequencing analysis

## Nature of Duty:

- 1. Analysis of exome/genome sequencing data from pediatric rare genetic diseases
- 2. Preparation of reports for patients
- 3. Oversee development of pipelines for analysis of next generation sequencing analysis
- 4. Preparation of project report/Manuscript writing
- (3) Project Scientist I

## Age Limit : 35 years

Emoluments : `56,000/-+ 24% HRA

## **Essential Qualifications:**

Doctoral Degree in Science or Master's Degree in Engineering or Technology from a recognized University or equivalent; and

## **Desirable Qualifications:**

- 1. Experience in working with generation and / or analysis of next generation sequencing data from whole exome/genome/transcriptome sequencing
- 2. Experience in development of pipelines for analysis of next generation sequencing analysis

## Nature of Duty:

- 1. Generation and implementation of NGS based protocols to address research questions related to genomics / transcriptomics / metagenomics.
- 2. Analysis of exome/genome sequencing data generated from prokaryotes and eukaryotes
- 3. Generation and implementation of pipelines for analysis of next generation sequencing data analysis
- 4. Preparation of project report/Manuscript writing

## (4) <u>Research Associate – I</u>

Age Limit : 40 years

Emoluments : `47,000/-+ 24% HRA

## **Essential Qualifications:**

PhD/MD/MS or equivalent degree OR 3 years experience of research after MVSc/MPharm/ME/MTech with atleast one research paper in Science Citation Indexed Journal

## **Desirable Qualifications:**

Experience in next generation sequencing / microarray analysis and report making as well as development of pipelines for same

## OR

Research experience in CRISPR-Cas9 mediated genome editing OR NGS based techniques like ChIP-seq, RNA-seq, WGS. Practical knowledge of NGS-data analysis will be a plus.

## OR

Preference will be given to candidates with research experience in protein production, protein pull-down and co-immunoprecipitation techniques. Practical knowledge of immunofluorescence analysis and confocal microscopy will be a plus.

## OR

Experience in protein biochemistry and mammalian cell biology and/or fruitfly genetics.

## Nature of Duty:

- 1. Analysis of exome/genome sequencing data from pediatric rare genetic diseases
- 2. Preparation of reports for patients
- 3. Development of pipelines for analysis of next generation sequencing analysis
- 4. Preparation of project report/Manuscript writing

OR

Generation of knock-in cell lines. Cell based assays on generated cell lines. Sample preparation for NGS analysis.

### OR

Candidate will be responsible for driving a research-project based on preliminary results provided.

#### OR

The selected candidate will conduct collaborative research using fruitflies and mammalian cell lines as model systems to functionally characterize novel genes responsible for inherited single-gene disorders.

#### (5) Senior Project Associate

#### Age Limit : 40 years

Emoluments : `42,000/-+ 24% HRA

## **Essential Qualifications:**

Master's Degree in Natural or Agricultural Sciences / MVSc or bachelor's degree in Engineering or Technology or Medicine from a recognized University or equivalent; and Four years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organisations and Scientific activities and services

#### OR

Doctoral Degree in Science / Engineering / Technology / Pharma / MD / MS from a recognized University or equivalent

#### **Desirable Qualifications:**

Experience in cell culture/molecular biology techniques/next generation sequencing/microarray analysis

#### Nature of Duty:

- 1. Conduct molecular biology experiments for next generation sequencing like DNA/RNA extraction, PCR etc
- 2. Analysis of next generation sequencing data
- 3. Sanger sequencing
- 4. Report writing and manuscript preparation

## (6) Project Associate – II

## Age Limit : 35 years

**Emoluments**: (i) `35,000/- + HRA to Scholars who are selected through (a) National Eligibility Tests - CSIR-UGC NET including lectureship (Assistant Professorship) or GATE or (b) A selection process through National level examinations conducted by Central Government Departments and their Agencies and Institutions.

(ii) `28,000/- + HRA for others who do not fall under (i) above.

## **Essential Qualifications**:

 Master's Degree in Natural or Agricultural Sciences / MVSc or bachelor's degree in Engineering or Technology or Medicine from a recognized University or equivalent;

and

(ii) 2 years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organisations and Scientific activities and services

## Desirable Qualifications:

Experience in next generation sequencing/microarray analysis and report making as well as development of pipelines for same

## OR

Experience in molecular biology, plasmid cloning, PCR, gel electrophoresis. Experience in working with laboratory animals will be a plus.

## OR

MSc in Genetic counselling with experience of counselling patients with genetic diseases.

## Nature of Duty:

1.Analysis of exome/genome sequencing data from pediatric rare genetic diseases

2. Preparation of reports for patients

3.Development of pipelines for analysis of next generation sequencing analysis

4. Preparation of project report/Manuscript writing

The selected candidate will be trained in methods to generate CRISPR knockout mice, and will be responsible for generating knockout mouse strains for multiple projects

# OR

The selected candidate will oversee recruitment of patients for exome sequencing and pretest/post-test counseling

# (7) Project Associate – I

## Age Limit : 35 years

**Emoluments :** (i) ` 31,000/- + HRA to Scholars who are selected through (a) National Eligibility Tests - CSIR-UGC NET including lectureship (Assistant Professorship) or GATE or (b) A selection process through National level examinations conducted by Central Government Departments and their Agencies and Institutions.

(ii) 25,000/- + HRA for others who do not fall under (i) above.

## Essential Qualifications:

Master's Degree in Natural or Agricultural Sciences / MVSc or bachelor's degree in Engineering or Technology or Medicine from a recognized University or equivalent

## **Desirable Qualifications:**

Experience in molecular biology, biochemistry, and/or cell biology and genetics (preferably Drosophila genetics)

## OR

Capability of using Linux based platform for NGS data analysis arising out of ChIP-Seq and RNA-seq experiments and other similar genomics approaches. Experience with computational / bioinformatics tools used for NGS analysis, proficiency with using Linux and BASH or other similar shell, comfortable in developing code in Python and/or R for data analysis and visualization.

# OR

Experience in molecular biology, biochemistry, and/or cell biology.

# Nature of Duty:

Drosophila genetics, immunohisto cytochemistry, generation of CRISPR knockouts for Drosophila genes, generation of plasmid constructs, protein expression and purification, and routine biochemical experiments.

# OR

NGS and visualization of data arising out of ChIP-Seq exome sequencing, whole genome sequencing and RNA-seq experiments done in Drosophila or higher eukaryotes as well as from SARS-CoV-2.

# OR

Generation and analysis of metagenomics, RNA seq and genome sequencing data from humans and other mammals infected with known and unknown pathogens.

# OR

Generation of plasmid constructs, protein expression and purification, cell culture, generation of CRISPR knockout cell lines.

# OR

Generation of plasmid constructs, protein expression and purification, enzyme assays, cell culture, generation of CRISPR knockout cell lines.

# OR

PCR and Sanger sequencing based molecular identification

## GENERAL TERMS AND CONDITIONS

- 1. The vacancies against the positions shall be filled based on the vacancies available at the time of selection. If more vacancies with identical job requirements become available within one year after the selection, these can also be filled from among the candidates who are empanelled for the above positions.
- 2. Candidates are encouraged to apply for multiple positions. Depending on the qualifications, experience and recommendations of the Selection Committee, the candidates may be selected for more than one position.
- 3. Depending on the qualifications, experience and recommendations of the Selection Committee, the selected candidates may be placed in a scale and designation lower than the grade advertised/applied against.
- 4. Candidates selected against the positions will be expected to carry out research in the areas of Biochemistry, Cell Biology, Computational and Structural Biology, Genetics, Immunology, Microbiology or Molecular Biology.
- 5. Emoluments of the candidates selected against the positions may vary depending upon the qualifications, experience, recommendations of the Selection Committee or emoluments sanctioned by the funding agency in the project.
- 6. Selection against the positions will not make the candidates with Master's Degree, eligible to register for the Ph.D. degree.
- All these positions are purely temporary and are initially for a period of six months or one year. These positions could be extended/terminated depending on the continuation of the project(s).
- 8. Reservation for SC/ST/OBC/Physically Handicapped/Ex-service person/ EWS applicants will be as per Govt. of India rules.
- 9. Relaxation of age for SC/ST/OBC/Physically Handicapped/Ex-service person/ Women applicants will be as per Govt. of India rules.
- 10. Mere fulfilling the minimum qualifications will not entitle the candidate for being called for interview. The applications will be screened by a committee based on research experience and requirement of each project. Only those candidates that are found suitable will be shortlisted to be interviewed through Video Conference. The decision of the Director, CDFD will be final in this respect and no correspondence will be entertained in this regard.

11. Any of the selected individuals may from time to time be assigned to perform any other duties commensurate with their qualifications, by the Director, CDFD.

Interested candidates, who fulfill the above conditions, should apply in the prescribed application form **ONLINE**, wherein the candidate is also required to submit a Statement of Purpose (maximum 200 words), emphasizing how his/her experience/expertise will contribute to research programs of CDFD. The link for the application form is available at <u>(*link to be provided*)</u>. Please upload soft copies of certificates in support of date of birth, educational qualifications, reservation category (if applicable). Please contact <<u>empcrcrmt@cdfd.org.in</u>> for any queries. The last date for submitting online applications is <u>18.01.2023</u>.

Incomplete applications, applications without Statement of Purpose, and applications without copies of certificates in support of date of birth / educational qualifications / experience / reservation category (if applicable) or the applications received after the last date are liable to be rejected.

Officer Incharge Acad & EMPC CDFD

Click here for Application Proforma