



राष्ट्रीय जैवचिकित्सा जीनोमिक्स संस्थान
(जैवप्रौद्योगिकी विभाग, भारत सरकार का स्वायत्तशासी संस्थान)

NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS

(An Autonomous Institute of Department of Biotechnology, Government of India)

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Advertisement No. NIBMG/ ADMIN/ESTB/PROJ RECTT/2023-24/298

Date: 01-12-2023

Positions available

A) ADVERTISEMENT-1

Project Name & Funding Authority: "Whole Genome Sequencing of MTB Clinical Strains for determining Drug Resistance and Strain Linkage in India" (DBT)

Project Description:

The focus of this study is nation-wide use of a whole genome sequencing-based approach to understand the distribution of MTB strains and prevalence of drug resistance in relation to favourable and unfavourable treatment outcomes in pulmonary and extra-pulmonary TB cases in India. NIBMG is looking for motivated and bright individuals interested in exploring career opportunities in this multi-organization research project as follows.

| Name of Position | No. of positions required | Consolidated and fixed monthly emolument | Essential Educational Qualification | Desirable Qualification | Nature of work & Responsibilities |
|----------------------------|---------------------------|--|--|---|---|
| Project Scientist-I | 1 | Rs. 56,000/- +HRA | 1. Doctoral Degree in Science OR Post Graduate degree in engineering and technology. 2. Age not exceeding 35 years. | 1. Experience in genome sequencing and data analysis of pathogens as evidenced by at least 1 peer reviewed publication. 2. At least 2 peer reviewed publications in Biology/ Genetics/ Microbiology after PhD. | Management and coordination of genome sequencing of M. tb samples received in NIBMG, QA/QC of sequencing data and submission to project data repository for analysis, analysis of sequencing data and scientific interpretation, preparation of scientific reports and manuscripts, any other work in the project assigned by PI and Co-PI. |

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|-------------------------------|---|-------------------------|--|---|--|
| Senior Research Fellow | 2 | Rs. 42,000/-+HRA | <ol style="list-style-type: none"> 1. Post Graduate Degree in Biological Sciences 2. NET/GATE/BET or any other National Level Examination 3. Two years of research experience 4. Age not exceeding 35 years. | <ol style="list-style-type: none"> 1. Experience in genomics and/or <i>M. Tb</i> research 2. At least one peer reviewed publication (research review or report) in biology/genetics/genomics. | Genome sequencing of <i>M. Tb</i> samples received in NIBMG, QA/QC and analysis of sequencing data, any other work in the project assigned by PI and Co-PI |
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B) ADVERTISEMENT-2

Project Name & Funding Authority: 'Inter-Institutional Programme for Maternal Neonatal and Infant Sciences a Translational approach-interdisciplinary group for advanced research on Birth outcomes-DBT India Initiative (GARBH-Ini Phase II) - DBT

Project Description:

Under its Grand Challenge Programme, the Department of Biotechnology, Ministry of Science and Technology, Govt. of India, has initiated a large multi-institutional and multi-phase research programme on PTB. The first phase of the programme has formally been launched in December 2013. The PTB programme has established a hospital-based cohort of pregnant women starting from the first trimester, each of whom will be followed up until delivery (GARBH-Ini). The cohort is ongoing in a district hospital in Gurgaon, Haryana. Because of the multifactorial nature of preterm birth, scientific expertise from multiple domains of clinical, biological, and statistical sciences are required to identify the correlates, causes and predictive biomarkers of preterm birth. Therefore, a cross-disciplinary platform is being used to bridge expertise from disparate fields, such as, paediatrics, gynaecology, infectious disease biology, epidemiology, microbiology, immunology, cellular & molecular biology, genetics, statistics and computational & systems biology.

We are looking for motivated and individuals with good academic standing who are interested to explore career opportunities in this innovative multi-organization initiative undertaken by NIBMG in the positions mentioned as below:

| Name of the position | No. of Position | Remuneration [INR] per month | Essential Qualifications | Desirable Qualifications | Nature of Duty |
|-----------------------------|-----------------|---|--|--|---|
| Project Scientist II | 1 | 67,000/- + 24% HRA | (i) Doctoral Degree in Science from a recognized University or equivalent; and (ii) Three years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and services ii) Age limit 40 years as on last date of application | (i) Minimum experience of 2 years in genomics /epigenomics /Human Cell Biology or In vitro work/maternal and child health (ii) Experience in large/multicenter research projects (iii) Publication in peer reviewed journal in relevant area (iv) Good communication skills | Coordination and management of project activities both within and outside the organization, hands on experimental laboratory work, publication and documentation work and other activities essential for the project |
| Project Associate-I | 1 | i) 31,000/- + 24% HRA to be given 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/- + 24% HRA for others who do not fall under (i) above. | i) Post Graduate Degree in Natural Sciences or bachelor's degree in engineering or technology or medicine from a recognized University or equivalent ii) Age limit 35 years as on last date of application | Hands on experience in (i) DNA sequence data analysis from FASTQ files, particularly on Human or Metagenomic samples using standard data analysis pipeline. (ii) Basic knowledge in R programming, Perl/Python and Linux (iii) Proficiency in English and good communication skills | Analysis of DNA, RNA sequence files from massively – parallel sequencing platforms, and preparing summaries and reports of data analysis. Performing day to day statistical analysis on the analyzed data and assisting the Project PI for data interpretation |

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|-------------------------------------|-----------------|--|--|--|---|
| <p>Project Associate-II</p> | <p>1</p> | <p>i) 35,000/- + 24% HRA to be given 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.</p> <p>(ii) 28,000/- + 24% HRA for others who do not fall under (i) above.</p> | <p>(i) Post Graduate Degree in Natural Sciences or bachelor's degree in engineering or technology or medicine from a recognized University or equivalent; and</p> <p>(ii) 2 years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and Services</p> <p>(ii) Age limit 35 years as on last date of application</p> | <p>(i) Hands on experience in hands on laboratory/data analysis work in genomics/ Human Cell or In vitro Biology.</p> <p>(ii) Peer reviewed publications in relevant area</p> | <p>Hands on work in laboratory/data analysis work in genomics/cell & in vitro biology, assisting project team in compilation of reports and manuscripts and other activities essential for the project</p> |
| <p>Research Associate-II</p> | <p>1</p> | <p>49,000/- + 24% HRA</p> <p>The emolument is consolidated and will be fixed as per DST OM SR/S9/Z-08/2018 dated 30-01-2019 Based on qualifications and experience</p> | <p>PhD or equivalent degree in Biological Sciences with at least one research paper in Science Citation Indexed (SCI) journal.</p> <p>Age limit as per DST norms.</p> | <p>1. Experience in biological sample handling, Human and Microbial DNA/RNA isolation, molecular biology experiments with genomic/metagenomic DNA/RNA</p> <p>2. Experience in human cell culture/anaerobic microbial culture, <i>in vitro</i> functional assays, and related molecular and cell biology experiments.</p> | <p>1. Designing and conducting experiments, gathering, organizing, and summarizing data; writing manuscripts; presenting results at meetings, writing experimental protocols; preparing various reports; contributing to grant applications and progress reports; training new personnel.</p> <p>2. Formulation of SOPs and maintaining GLP with proper documentations of day-to-day lab activities</p> |

C) ADVERTISEMENT-3

Project Name & Funding Authority: “Multi-Omics Signatures of Human Placenta: Real time assessment of underlying mechanisms for prediction of birth outcomes and development,” funded by the Department of Biotechnology, Ministry of Science & Technology, Govt. of India.

The National Institute of Biomedical Genomics (NIBMG) is engaged in profiling alterations of cell types in the maternal-fetal interface and identify cell type specific expression signatures in placenta that are associated with placental development using single-cell transcriptomics in the ongoing multicenter study (in collaboration with THSTI and RCB, Faridabad) on “Multi-Omics Signatures of Human Placenta: Real time assessment of underlying mechanisms for prediction of birth outcomes and development,” funded by the Department of Biotechnology, Ministry of Science & Technology, Govt. of India. Applications from motivated post-doctoral researchers with deep interest in the field of single cell transcriptomics and placenta biology are being invited for the following position in this study.

Details of the project:

Placenta is an essential organ that is considered to be the hub of feto-maternal interactions from conception to delivery. Placental insufficiency has been associated with several pregnancy related complications including preterm birth (PTB). However, direct invasive tissue-sampling from the placenta during pregnancy is not feasible due to inaccessibility and safety concerns. Here we propose to use state-of-the art tools involving multi-omics approach for development of methods to better understand molecular signatures of feto-maternal dynamics. Our ultimate goal of probing this understudied organ is to unravel its role in parturition and use of associated molecular signatures for developing deep-learning predictive models for PTB. Identification of these nodes could be used as diagnostic markers for monitoring the optimal placental functioning for healthy pregnancy. Thus, if successful, the outcome of this study would spark the development of cost-effective tests for prediction of PTB.

| Name of the position | No. of position | Monthly Emoluments (₹) | Essential Educational Qualifications | Desirable Qualifications | Nature of work & Responsibilities |
|----------------------|-----------------|------------------------|---|---|--|
| RA-III | 1 | 54,000+24% HRA* | (i) PhD* in Life Science or bioinformatics or Genomics with at least one research paper in Science Citation Indexed (SCI) journal. OR M. Tech in Biotechnology with at least one research paper in Science Citation Indexed (SCI) journal with minimum three years of research experience. Age limit as per DST norms. | (i) Experience in placenta biology/cell and in vitro biology experimental work. (ii) At least one first/joint first author publication in relevant area in an international peer reviewed journal; | Single cell transcriptomics and cell/in vitro biology work, integrative analysis of data generated in other arms of the study, manuscript writing and preparation of reports |

***The emolument is consolidated and will be fixed as per DST OM SR/S9/Z-08/2018 dated 30-01-2019 Based on qualifications and experience**

- All the above positions are purely contractual initially for 6 months [for Advertisement-3 initially for 4 months only], which may be extended depending upon performance, requirements of the project and availability of funds.**

2. Please apply online at **<https://apply.nibmg.ac.in>** (no other form of application will be accepted).
3. The last date of application is **22nd December 2023, 5PM**. Please visit our website **www.nibmg.ac.in** for further information.
4. Only the shortlisted candidates will be called for Interview. The date of Interview will be intimated later. No TA/DA will be provided for attending the Interview/Test.
5. The decision of NIBMG in all matters relating to eligibility, acceptance or rejection of application, mode of selection, and conduct of interviews will be final and binding on the candidates. In exceptionally meritorious cases, the eligibility requirements may be relaxed by the competent authority.

Following documents are required at the time of interview:

- a) Curriculum Vitae along with reprints of publications (if any)
- b) Copy of on-line application forms.
- c) Copy of PhD thesis (if any) (Only for Project Scientist-I, Project Scientist II and RA-III).
- d) One Recent Passport- size colored Photograph
- e) Original and one Self-Attested Copies of Certificates of Educational Qualifications
- f) Original and Self-Attested Copies of Experience Certificates
- g) Original and one Self-Attested Copies Govt. issued Photo ID proof (Preferably Aadhar Card)

Manager-Administration