

POSITIONS AVAILABLE

12th October 2021

Applications are invited for the position of TWO **Research Associate** in the DST funded project entitled “**National Centre for Screening of Natural Products for Parasitic diseases**”.

Candidates must have qualified NET.

POSITION 1

The project will be focused on screening of small molecule inhibitors against the proteasomes of *E. histolytica*.

Essential qualification: PhD in any branch of Biological Sciences with at least one first author paper.

Desirable: The candidate must have extensive experience in protein purification techniques along with some basic knowledge of molecular/cell biology techniques and animal cell culture. Experience in molecular modelling and optimization of compound series via structure-based drug design is desirable. Candidates with prior work experience with *Entamoeba histolytica*, along with abovementioned qualifications will be given preference.

POSITION 2

Essential qualification: PhD in any branch of Biological Sciences with *at least* one first author paper.

Desirable: The candidate must have basic knowledge of molecular/cell biology techniques and animal cell culture. Candidate should be proficient in the following genetic engineering based recombinant DNA technologies:

1. *Bioinformatics* including primer designing, phylogenetic analysis, comparative genomics and proteomics analysis, homology modelling and virtual docking.
2. *Molecular biological techniques* including gene cloning; and, protein expression & purification.
3. *Functional complementation assays* in gene-knockout strains of *Saccharomyces cerevisiae*.
4. *Genetic manipulation* (genome editing) in the protozoan parasites: *Leishmania donovani* and *Plasmodium falciparum*. Includes synthesis of recombinant plasmid constructs for CRISPR/Cas9-mediated gene editing; and, miRNA and siRNA-mediated mRNA knockdown, followed by electroporation-based transfections in the parasites.
5. *Biophysical techniques* including Surface Plasmon Resonance (SPR), Isothermal Titration Calorimetry (ITC), Fluorescence spectroscopy, Circular Dichroism (CD), Time Resolved Fluorescence Spectrometry (TRFS), Raman spectrometry and Capillary electrophoresis.

Candidates with prior work experience with *Leishmania donovani* and *Plasmodium falciparum* cultures, along with above mentioned expertise will be given preference.

Candidates should submit a brief (about 1 page) summary of their research work and a copy of their CV (with names and e. mail contacts of two referees) along with the application.

Salary: INR 47000/- p.m.

The position is co-terminus with the project

The applications should be addressed to Dr. Rohini Muthuswami and must reach by 17:30 pm on 29thOctober by email as follows:

For Position 1: Email: swatijnubt@gmail.com

For Position 2: Email: shailjasngh@gmail.com

The subject line of the Email should be in the format “your name_RA_applicant_DPRP”.