

## **Advertisement for the temporary post of Senior Research Fellow (SRF)**

Applications are invited for the temporary post of SRF in the CSIR sponsored research project entitled “Interaction of respiratory syncytial virus (RSV) envelope protein with glycosaminoglycans (GAGs) with possible implications for drug design and vaccine development”.

**Summary of the proposal:** Respiratory syncytial (RSV) is the major pathogen of acute respiratory tract. The G protein of RSV is involved in attachment of virion with the host cell. Glycosaminoglycans (GAGs) present on the surface of mammalian cells act as receptors for RSV. The wild type protein has been cloned, expressed, purified and characterized in a previous investigation. We propose to generate some mutants of the G protein by site directed mutagenesis in the present proposal. The mutant proteins will be characterized by using biophysical methods. The structures of wild type and mutant proteins will be compared in terms of their conformational changes and stability. Different ligands (GAGs, CX3CR1 and inhibitors) will be docked with the modeled structures of wild type and mutant G proteins. High affinity ligands will be identified and synthesized commercially. The protein-ligand interactions will be studied by fluorescence and isothermal calorimeter. The interaction of the G protein with receptors is envisaged to facilitate drug designing efforts.

**Project duration:** The duration of the project is upto May 2021. Stipend shall be given as per the CSIR rule.

### **Qualifications:**

- (1) M.Sc. degree in Life Sciences or allied subjects.
- (2) Minimum 2 years of research experience after post-graduation as evidenced from published papers in standard refereed journals.

**Desirable:** Research experience in the field of cloning, expression and purification. Expertise in characterization of proteins using biophysical methods like circular dichorism, fluorescence and dynamic light scattering spectroscopy.

Applications with updated hard copy of the CV should reach the “**Office, Centre for Interdisciplinary Research in Basic Sciences, S. Ramanujan Block, Jamia Millia Islamia, New Delhi-110025**” on or before **9<sup>th</sup> February 2018**. Short listed candidates shall be communicated by e-mail to appear in person with original certificates for the interview. Kindly mention your mobile number and E-mail ID in the CV.

**Dr. Shama Parveen**  
**Principal Investigator**  
**Centre for Interdisciplinary Research in Basic Sciences**  
**Jamia Millia Islamia**  
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