

Indian Institute of Technology Indore
Khandwa Road, Simrol, Indore 453 552

Dated: 11.05.2021

Advertisement for JRF position under DST sponsored project

IIT Indore invites applications from highly motivated, sincere, hardworking and research oriented candidates for the position of JRF in an Indo-Russian (DST-Russian Foundation for Basic Research) joint project entitled “**Development of theranostic targeted magnetic nanoparticles for diagnostics and treatment of tuberculosis**” funded by DST. Candidates are strongly advised to visit the profile of **Prof. Avinash Sonawane** (<https://asonawane.wixsite.com/iitibsbe>) before applying against this advertisement.

Project Details: *Mycobacterium tuberculosis* (Mtb), causative agent of tuberculosis (TB), is a multifaceted pathogen and still remains major threat to public health world-wide. Globally an estimated 3.3 % new TB cases are registered and 20 % have Multi drug resistant (MDR-TB). MDR-TB occurrence has been increasing due to inefficient diagnosis, screening, delivery of drugs to lungs and patient non-compliance. TB control programs are in urgent need to establish immediate and fast screening and diagnostic tools for diagnosing patients with active diseases. Therefore, here we plan to develop a novel platform for rapid TB diagnosis. The whole system is based on the SPIONs coupled with mycobacterium specific antibodies as a recognition element for detecting the *Mycobacterium* antigen with a fluorescence read out. In this project novel anti-tubercular MR contrast agent based on SPIONs will be developed. Alternatively, we also plan to develop fluorescence based biosensing device for TB diagnosis.

Stipend and Duration: The amount of fellowship will be as per DST norm for a period of one year initially.

Educational Qualifications: M.Sc. degree in Biotechnology, Microbiology, Life Sciences/or in equivalent degree with first division as defined by the awarding Institute/University. Student with NET/GATE will be given preference.

How to Apply: Interested candidates are requested to send a detailed CV to **Prof. Avinash Sonawane** (asonawane@iiti.ac.in) with subject line “Application for JRF position for DST project” latest by **May 30, 2021**. Complete information of year of passing, experience, marks, etc. should be mentioned in the CV. Incomplete applications will be rejected.

Only shortlisted candidates will be called for interview. Selected candidates will be intimated by email.

No TA/DA will be paid for appearing in the interview.

Note: The institute reserved the right to fill or not to fill the post advertised.