

**JRF position in Nano and bio-interface group available**

Applications are invited for a Junior Research Fellowship for a project in broad area of “Design and fabrication of disposable devices for quantitative detection of fluoride in field studies (Project No. : DST-TM-WTI-2K14-213)” at **Centre for Nano and Material Sciences (CNMS), Jain University, Bangalore, Karnataka, India.**

**Qualification and Experience:**

1. M. Sc. in Chemistry or Polymer Science or any related area. Candidate should have obtained at least 55% marks in qualifying degree examination.
2. Preference will be given to CSIR-UGC NET (JRF / LS) or GATE qualified candidate.
3. The ability to work closely and collaborate with colleagues is a must. Proficiency with the English language is required.

**Stipend:**

Stipend of around Rs. 23,000 per month as per DST, the salary and appointment terms are consistent with the current rules for Ph.D. degree students and as per University norms.

**Duration:** Initial appointment is for one year, extendable up to 3 years based on performance. Objectives of the 3 years position is to gain knowledge and experience in an international collaboration environment which should lead into number of peer reviewed articles and review papers, which should complement the Ph.D. thesis.

**How to apply:**

Application should contain a detailed resume, one recent colour photograph and contact details including phone number, email and postal address, photocopies of educational/professional qualifications. Please also mention preferred date of joining if selected.

Completed applications should reach A / Prof Mahaveer Kurkuri, Nano-Bio Group, JGI Global Campus, 45<sup>th</sup> km, NH - 209, Jakkasandra Post, Bangalore - Kanakapura Main Road, Ramanagar District - 562 112, Bangalore Rural, Karnataka, India by **21 July 2015**. The applicant can also preferably apply through e-mail (E-mail: mahaveer.kurkuri@jainuniversity.ac.in).

Please also provide at least two references that may be contacted regarding your recent work. Only shortlisted candidates will be called for the interview. Selected candidates will be intimated by email. No TA / DA will be paid for appearing in the interview.

**About the Group and its focus:**

The group has its focus to work on biosensors, microfluidic devices, cancer, lab-on-a-chip devices, fluoride detection and nanotechnology. Currently funding for 2 JRF positions on the topic “Microfluidic Devices to Enhance the Overall Capturing Efficiencies of Circulating Tumour Cells (CTCs)” in collaboration with IISc, Bangalore and University of Adelaide, Australia.

**Project Overview:**

Among the wide range of anions, fluoride has attained significant importance in the scientific community because of its dual functionality. This biologically important anion has a vital role in preventing dental decay and in the treatment of osteoporosis. Therefore, small quantity of fluoride ions is essential as well as beneficial to human health. In contradictory, excess of fluoride consumption can cause dental fluorosis or mottled enamel and skeletal fluorosis, a bone disease which is a major problem in India. It has been assessed that excess fluoride consumption can inhibit over 100 different enzyme systems in the human body. Acute fluoride exposure may cause collagen breakdown, depression in the thyroid activity, bone cancer, immune system disturbance and anaemia. Recently, fluoride has also been suspected for many lethal diseases including damaging the hippocampal area of brain. Fluoride is therefore, often known to be a two-edge sword. Despite of knowing these facts, continued introduction of fluoride to the environment by excessive usage of fertilizers and industrial wastes is of great concerned.

**Facilities available in campus:** A very good hostel and mess facilities are available, for more details check <http://cnms.jainuniversity.ac.in/Social-facilities.htm>

**Contact Person:**

Dr. Mahaveer Kurkuri,  
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