APPLICATIONS INVITED FOR A PROJECT JUNIOR RESEARCH FELLOW (ORGANIC / INORGANIC CHEMISTRY)

Applications are invited for the post of Junior Research Fellow in a DST funded project entitled “Detoxification of Organomercury Compounds: Enzyme Mimetic Studies to Understand the C-Hg Bond Activation by Organomercurial Lyase” under the supervision of Dr. Gouriprasanna Roy, Department of Chemistry, School of Natural Sciences (SNS), Shiv Nadar University (SNU), UP 201 314.

Essential & Desirable Qualification: The applicant must have an M.Sc. degree in Chemistry (Organic / Inorganic) from a recognized University with a minimum of 55% marks or equivalent grade. It is preferable that the candidate is GATE/NET qualified (attach a copy of the score card) or holds an INSIRE (or any equivalent) fellowship or has experience in organic/Inorganic synthesis.

Fellowship: As per DST norms, Rs. 16,000/- p.m. plus HRA as permissible.
Duration: One year (extendable based on performance and availability of funds)

Project Description: In nature, the detoxification of organomercury compounds is achieved by the combined action of two mercury resistance bacterial enzymes, specifically, bacterial organomercurial lyase (MerB) which catalyzes the protolytic cleavage of the otherwise inert Hg–C bond while a second enzyme, mercuric ion reductase (MerA), reduces Hg(II) to less toxic elemental mercury, Hg(0). Although MerB successfully converts toxic [MeHg+] to Hg(II), the role of amino acids in the active site of the enzyme including three Cys residues (Cys-96, Cys-159, and Cys-160) and the heteroatom containing amino acids close to Cys residues, Trp95, Asp99 and His161, in detoxification of methylmercury is not clear yet. Thus, to understand the mechanism of demethylation of MeHg, we propose to study the cleavage of Hg–C bond by MerB enzyme mimetics. Research in our laboratory is focused on two major areas: chemistry (organic/ inorganic) and biology, at the interface of chemistry and biology. Our goal in this project is to understand the mechanism of detoxification of organomercury compounds by the combined effect of bacterial organomercurial lyase (MerB), and mercuric ion reductase (MerA), which may lead to the development of an alternative and suitable method in detoxification of organomercury compounds.


Applications with complete bio-data (with details of qualification i.e. examination passed, year, division, percentage of marks 10th board onwards, and photocopies of mark sheets/ testimonials/ certificates) should be sent by email (or by post) to reach the following office on or before 25 July 2014:

Ms. Rupa Goswami
EA to the Director
School of Natural Sciences, Shiv Nadar University
Post Office Shiv Nadar University
District Gautam Buddha Nagar, Tehsil Dadri, UP 201 314, India.
Email: rupa.goswami@snu.edu.in
Telephone: +91 120 266 3841

Selected candidates will be called for interview at the SNU campus. No TA/DA will be provided for appearing in this interview.
General Information about SNU
SNU is a multi-disciplinary research-led university, established by the Shiv Nadar Foundation in 2011 through an act of the State of Uttar Pradesh, India. SNU's mission is to develop and educate the leaders of tomorrow; to support research and scholarly endeavors that contribute to the creation of new knowledge; and to run research and teaching programs that tackle the most pressing problems of India and the global community. The University offers a wide range of academic programs at the undergraduate, post-graduate and doctoral level.