



## राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान भुवनेश्वर

परमाणु ऊर्जा विभाग, भारत सरकार का एक स्वयं शासित संस्थान

**NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHUBANESWAR**

(An autonomous research institution under Department of Atomic Energy, Govt. of India)

Jatni, Khurda, Odisha - 752050

**( School of Biological Sciences )**

Postdoctoral/Research Associate-1 positions are available in the School of Biological Sciences-NISER in the following research laboratories. The application in the prescribed format is available on the website ([https://www.niser.ac.in/notices/2021/recruitments/PDF\\_Advt\\_10052021.pdf](https://www.niser.ac.in/notices/2021/recruitments/PDF_Advt_10052021.pdf)).

### Fellowship and Benefits:

Sl. No.	Category	Monthly Fellowship	Other Benefits
1	<b>RA – I:</b> Candidates successfully defended their thesis or having less than 1 year experience after award of Ph.D. Degree	₹47,000/-	<ul style="list-style-type: none"> <li>HRA would be paid as per applicable rates if no official accommodation is provided / occupied.</li> <li>Contingency grant of ₹40,000/- per year is available to be spent as per rules.</li> <li>Medical facility as per institute rules.</li> <li>Leaves provision is available as per Institute rules for PDFs.</li> </ul>
2	<b>RA – II:</b> Candidates with 1 or less than 2 years of experience after award of Ph.D. Degree	₹49,000/-	
3	<b>RA – III:</b> Candidates with 2 - 3 years of experience after award of Ph.D. Degree	₹54,000/-	

**Research Groups:** (*click to see details, in this document*)

1	<b><u><a href="#">Translation control research group</a></u></b> Dr. Pankaj V. Alone <a href="mailto:pankaj@niser.ac.in">pankaj@niser.ac.in</a>	4	<b><u><a href="#">Pharmaceutical Biology</a></u></b> Dr. V Badireenath Konkimalla <a href="mailto:badireenath@niser.ac.in">badireenath@niser.ac.in</a>
2	<b><u><a href="#">Cellular Immunology Lab</a></u></b> Dr. Subhasis Chattopadhyay <a href="mailto:subho@niser.ac.in">subho@niser.ac.in</a>	5	<b><u><a href="#">Neural circuits and behavior</a></u></b> Dr. Praful Singru <a href="mailto:pssingru@niser.ac.in">pssingru@niser.ac.in</a>
3	<b><u><a href="#">Cancer Genomics and Genetics Lab</a></u></b> Dr. Manjusha Dixit <a href="mailto:manjusha@niser.ac.in">manjusha@niser.ac.in</a>	6	<b><u><a href="#">Macromolecular Crystallography</a></u></b> Dr. Rudresh Acharya <a href="mailto:rudresh.acharya@niser.ac.in">rudresh.acharya@niser.ac.in</a>

The positions are purely temporary basis and appointments may be made initially for a period of one year, extendable to a maximum tenure of two years upon satisfactory academic performance. Candidates should send in their applications and arrange for the recommendation letters to reach the Chairperson of the School of Biological Sciences through email: [cpsbs@niser.ac.in](mailto:cpsbs@niser.ac.in) with a copy to the email of the interested faculty with whom he/she intends to work.

The applications should have the following documents:

- (a) A cover letter that mentions the specific research area outlined below they would like to be considered.
- (b) A detailed academic CV, list of publications, and names of two academic referees.
- (c) A statement of research interests
- (d) A brief project proposal relevant to the PI's lab interest.

The candidate should arrange for the letters of reference to reach the chairperson of the school by email and the concerned faculty member within a week of the date of application. The candidates who are shortlisted based on their CV, research statement, and letters of recommendation would be interviewed either in person or through video/internet conferencing before the final selection is made.

### **1. Laboratory: Translation control research group. (01 position)**

*Date of posting: 20<sup>th</sup> October 2022.*

**Principal Investigator:** Dr. Pankaj V. Alone ([pankaj@niser.ac.in](mailto:pankaj@niser.ac.in))

**Laboratory Description:** The translation control research group headed by Dr. Pankaj V. Alone uses state-of-the-art biochemical, biophysical, and molecular genetics techniques to understand the mechanisms of the non-AUG base translation initiation process and how they regulate gene expression in the eukaryotes. We use yeast genetics, protein purifications, and biochemical/biophysical techniques to characterize the in-vitro reconstitution of the translation system comprising purified 40S ribosome, initiation factors, mRNA, and tRNA. (<http://www.niser.ac.in/~pankaj/index.html>) (<https://www.niser.ac.in/users/pankaj>)

**Qualifications requirements:** A highly motivated candidate with a Ph.D. awarded or thesis submitted in the area of molecular biology/biochemistry/biophysics/computational biology/genomics should apply. The candidate should have a proven track record of publications. Candidates having expertise in protein purification, fluorescent polarization spectroscopy, and genomics data analysis are encouraged to apply.

### **2. Laboratory: Cellular Immunology Lab (01 position)**

*Date of posting: 20<sup>th</sup> October 2022.*

**Principal Investigator:** Dr. Subhasis Chattopadhyay (Email: [subho@niser.ac.in](mailto:subho@niser.ac.in))

**Laboratory outline:** The Cellular Immunology Research lab headed by Dr. Subhasis Chattopadhyay, is pursuing investigations towards unraveling the role of Cell Mediated Immunity(CMI) and its regulation associated to Infection Immunity, Cancer Immunity and Inflammation. Research with cell lines, primary cells, human blood samples and mice models are the prime components for our ongoing experimental studies. Such understanding will be helpful towards designing future immuno-therapeutic strategies to control various diseases. Laboratory website: <https://www.niser.ac.in/users/subho>

**Qualifications requirements:** A highly self-motivated candidate with Ph.D. (submitted or awarded) and relevant publications in the field of Cellular Immunology may apply for the potential PDF position. The candidate(s) should submit an updated CV including expertise, experience and a brief project proposal relevant to the lab work to ensure the candidature.

### **3. Laboratory: Cancer Genomics and Genetics Lab (01 position)**

*Date of posting: 20<sup>th</sup> October 2022.*

**Principal Investigator:** Dr. Manjusha Dixit (Email: [manjusha@niser.ac.in](mailto:manjusha@niser.ac.in))

**Laboratory Description:** Dr. Manjusha Dixit's group works in the area of Cancer Genomics and Genetics. Her research interests include identification of novel tumorigenic and angiogenic

regulators, and determination of genetic predisposition for Gallbladder cancer. Her research focuses on establishing the role and molecular mechanism of tumorigenesis and angiogenesis regulation. Her group has established FRG1 as tumor suppressor, and identified the anti-angiogenic role of IQGAP2 in breast cancer. Her group uses human cell lines, animal models, and human samples as model systems for the research. List of the publications can be found at [https://scholar.google.co.in/citations?hl=en&user=euLUU34AAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=euLUU34AAAAJ&view_op=list_works&sortby=pubdate)

Lab Website: <https://www.niser.ac.in/users/manjusha>, <https://nisersbs.wixsite.com/manjushadixit>

**Required qualifications:** Dr. Dixit's Laboratory is seeking a highly motivated and innovative Postdoctoral Fellow to carry out the research in the area of Cancer Genomics. Candidates with a PhD degree in cancer biology/ molecular biology/ cell biology/ any other area in life sciences are eligible for the application. Candidates having experience in the animal cell culture, molecular and cell biology techniques, animal handling will be preferred. Interested candidate(s) can submit CV showing the expertise, details of experience, and a brief project proposal.

#### 4. Laboratory: **Pharmaceutical Biology** (01 position)

*Date of posting: 20<sup>th</sup> October 2022.*

**Principal Investigator :** Dr. V Badireenath Konkimalla ([badireenath@niser.ac.in](mailto:badireenath@niser.ac.in))  
<https://www.niser.ac.in/users/badireenath>

**Laboratory Description:** The lab works in an interdisciplinary area of pharmaceutical biology (computational and experimental approaches) that can address problems related to drug development and delivery.

**Required Qualifications:** We look for suitable candidates well-experienced in the area of drug research who can complement and extend their expertise in achieving the objectives. Candidates well-versed in the areas related to Pharmacology, Pharmaceutical technology, Bioinformatics, Data science, Biotechnology are encouraged to apply. The qualifications of the candidate for the advertised position can be

- PhD (submitted/awarded) in Pharmacy/life sciences/biotechnology
- OR
- M.Pharm or M.Tech with a minimum 3 years of experience and one publication.

Interested candidates are requested to send their CV with details of research experience, publications or any relevant experience to [badireenath@niser.ac.in](mailto:badireenath@niser.ac.in)

#### 5. Laboratory: **Neural circuits and behavior**

*Date of posting: 20<sup>th</sup> October 2022.*

Principal Investigator: Dr. Praful Singru (email: [pssingru@niser.ac.in](mailto:pssingru@niser.ac.in))

Dr. Singru' s lab is interested in understanding the neural circuitry and central mechanism regulating energy balance and reward. The lab employ rodents and zebra finch as model systems, and neuroanatomical tools including the neuronal tract tracing, immunofluorescence, microscopy, stereotactic surgeries, intracerebroventricular and intra-nuclear drug administration, brain microdialysis, expression of neuropeptides, and analysis of behavior.

For the list of publications, please visit: <https://niser.irins.org/profile/235255> or <https://pubmed.ncbi.nlm.nih.gov/?term=Praful+Singru&sort=date&size=100>

Qualification requirements: Highly motivated candidates with Ph.D. (awarded/submitted) in Pharmacology or any other areas in life sciences with experience in cell and molecular biology techniques, bioinformatics, and animal handling are encouraged to apply. Candidates should

email their applications in the prescribed format along with their CV, list of publications, a research proposal relevant to the research interest of the lab, and three reference letters to pssingru@niser.ac.in

**6. Laboratory: Macromolecular crystallography and protein design (01 position)**

*Date of posting: 27<sup>th</sup> March 2023.*

**Principal investigator:** Dr. Rudresh Acharya (e-mail: [rudresh.acharya@niser.ac.in](mailto:rudresh.acharya@niser.ac.in))

**Research area description:** We are interested in protein design and engineering for specific small molecule binding. This will elucidate the principles for molecular recognition and aid in crafting beneficial novel functions for green chemistry and industrial applications. We employ a computational approach for rational protein design and design of peptides, use solid phase for peptide synthesis, and chromatography for purification. We validate the design through X-ray crystallography, biophysical and biochemical methods. (Lab homepage: <https://www.niser.ac.in/~rudresh.acharya>)

**Required Qualifications:** We seek a highly motivated candidate with a Ph.D. in Chemistry/ Biophysics/ Computational biology. Candidates with expertise in protein purification, peptide synthesis and purification, crystallization, and spectroscopic techniques are encouraged to apply.

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