



कनिष्ठ अनुसंधान फेलो के पद पर नियुक्ति हेतु विज्ञापन/Advertisement for JRF Position

“RCC-on-chip - Machine Learning-Guided Microfluidic System for Controlled Synthesis of Drug-loaded Nanoparticles for Targeted Therapy of Renal Cell Carcinoma” शीर्षक वाली परियोजना, जिसे अनुसंधान नेशनल रिसर्च फाउंडेशन (ANRF)-ARG, भारत द्वारा स्वीकृत किया गया है, पर कार्य करने हेतु **जूनियर रिसर्च फेलो (JRF)** पद के लिए इच्छुक उम्मीदवारों से आवेदन आमंत्रित किए जाते हैं।

Applications are invited from the interested candidates for the post of Junior Research Fellow (JRF) to work on the project titled **“RCC-on-chip - Machine Learning-Guided Microfluidic System for Controlled Synthesis of Drug-loaded Nanoparticles for Targeted Therapy of Renal Cell Carcinoma”** sanctioned by Anusandhan National Research Foundation (ANRF)-ARG, India.

क्र.सं. Sl. No.	पद Position	विशेषज्ञता का क्षेत्र Area of Specialization	अवधि Duration	प्रति माह समेकित वेतन Consolidated Salary per Month
1 (One)	Junior Research Fellow	Microfluidics, Nanoparticle Drug Delivery, Machine Learning-Guided Biomedical Systems, and Targeted Cancer Therapy, Cell Culture	01 year (Extendable up to 3 years)	Rs. 37000/- (Per month plus 20% HRA as per Project norms)

न्यूनतम शैक्षणिक योग्यता / Minimum Qualification:

• **Essential Qualification:**

1. **M. Tech in Bio-Engineering/ Biotechnology/Biomedical Engineering/Chemical Engineering or equivalent** with **at least 60% marks** in aggregate from a recognized technical institute/university as a full-time program, and desirable 1 year of research experience.
Or
MSc in Biotechnology/Biochemistry **with a valid GATE or NET score** and with **at least 60% marks** in aggregate from a recognized technical institute/university as a full-time program, and desirable 1 year of research experience.
2. Preference may be given to the candidate having appropriate knowledge of experiment/simulation work in the domain and scientific writing.

Note:

M.Tech./M.E. candidates should have either a valid GATE score or should have been admitted to the M.Tech./M.E. programme through GATE qualification to be considered for appointment as JRF under ANRF norms or M.Tech./M.E. degree holders who have never qualified GATE, shall be considered for engagement as Project Associate-I with a consolidated remuneration of ₹30,000/- per month plus applicable HRA, in accordance with S. No. 3, Clause (ii) of the Office Memorandum ANRF/OM/N-01/2024 dated 14.10.2024.

अधिकतम आयु सीमा/Upper age limit: 30 years (for SC/ST/OBC-NCL/PwBD/EWS, Women, as per ANRF norms, i.e., 5 years)

परियोजना का संक्षिप्त उद्देश्य/Brief Objective of Project:

The aim of the proposed work is to develop a Microfluidic chip for the controlled synthesis of drug-loaded nanoparticles, guided by a machine learning model, for targeted therapy of Renal Cell Carcinoma.

The specific objectives of the proposed work are:

1. Fabrication of a novel microfluidics-based continuous laminar flow microreactor incorporating passive micro-mixing strategies for the controlled synthesis of NPs (1–100 nm) using advanced micromachining.
2. To synthesize dual-gated, enzyme-responsive nanoparticles (NPs) capable of selectively eliminating renal cell carcinoma (RCC) by leveraging tumor-specific biomarkers, while integrating a mitochondria-targeting moiety (triphenylphosphonium, TPP) to enhance intracellular apoptosis.
3. Implementing an ML algorithm for precise control of synthesized NPs by adjusting reaction parameters and process optimization.
4. To perform a comprehensive in vitro evaluation and validation of the synthesized NPs, focusing on their selectivity, cellular uptake, and cytotoxicity in A498 RCC cell lines compared to healthy kidney cells.

आवेदन प्रक्रिया/ Application Process:

विधिवत रूप से भरा हुआ आवेदन पत्र, अपेक्षित विवरण, प्रमाण-पत्रों की स्कैन प्रतियां तथा अन्य सहायक दस्तावेज़ ऑनलाइन पोर्टल (<https://apply.iitjammu.ac.in/#/home>) के माध्यम से **15th August, 2026** तक अपलोड किए जाने चाहिए। कृपया उक्त पोर्टल पर [contract/project staff/JRF/SRF] टैब के माध्यम से आवेदन करें। पहले से नियोजित उम्मीदवारों को चयन होने पर अपने नियोक्ता से कार्यमुक्ति प्रमाण-पत्र (relieving certificate) प्रस्तुत करना होगा। शॉर्टलिस्ट किए गए सभी उम्मीदवारों के लिए साक्षात्कार आयोजित किया जाएगा।

The duly filled application form along with the requested details, scanned copies of certificates, and other supporting documents should be uploaded through the online portal (<https://apply.iitjammu.ac.in/#/home>) by **15th August, 2026**. Please apply through the [contract/project staff/JRF/SRF] tab on the portal referred to. Candidates who are already employed should produce a relieving certificate from their employers if selected. The interview will be conducted for all shortlisted candidates.

महत्वपूर्ण सूचना/Attention:

1. The applicant will be responsible for the authenticity of the information, other documents, and photographs submitted.
2. Merely possessing the prescribed qualification does not ensure that the candidate would be called for an Interview. The candidates may be shortlisted based on merit and need for the project.
3. Shortlisted candidates will be informed by e-mail about the interview. So, the candidate must provide valid e-mail IDs, phone number information in their applications.
4. Shortlisted candidates must present themselves for the interview on the interview date with an updated CV and original and attested photocopies of mark sheets/certificates in support of their academic qualifications. Only shortlisted candidates will be called for the interview. The time of the interview will be informed to the shortlisted candidates by e-mail. The interview will be held by using the online platform.
5. Candidates who are already employed should produce a relieving certificate from their employers if selected.
6. The last date for receiving the duly filled in application is **15th August, 2026** through an online portal.
7. The date of interview will be informed to the shortlisted candidates through email.
8. The selected JRF may get an opportunity to peruse PhD at IIT Jammu as per institute norms.
9. **Candidate must upload all the documents with respect to educational qualification, Experience etc.**

पत्राचार का पता Address for Correspondence:

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