



Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,500 employees in one of Europe's biggest research centres and help us to shape change!

The Simulation and Data Lab Applied Machine Learning at Jülich Supercomputing Center develops new innovative applications of Machine Learning across a variety of fields in close collaboration with partners. This includes our work in molecular biology which focuses on developing AI protein design models with a subsequent wet lab validation. Are you looking for an interesting Researcher/Postdoctoral position in a state-of-the-art scientific environment? Join our team now!

Join our team to the next possible date as

Researcher in AI-Driven Protein Therapeutics for Cancer Pathways

Your Job:

The current position is a part of the Helmholtz Bioengineering Consortium, including generative AI experts, structural and molecular biologists and clinicians to develop anticancer therapeutics by protein design. This project will apply cutting-edge generative AI methods—including protein design, structure–function prediction, and multimodal learning—to develop and optimize a new generation of protein therapeutics that can overcome resistance mechanisms in cancer pathways. Specific objectives include:

- Identifying protein modalities most predictive and functionally relevant to the EGFR–Ras signaling cascade
- Developing generative AI models for protein design within an existing multimodal framework integrating sequence, structure, functional, microscopy and molecular dynamics data
- Incorporating reinforcement learning strategies to guide model optimization, with a focus on minimizing immune responses and improving therapeutic viability

Your Profile:

- Completed Master/PhD Degree in the field of computer science, biology, physics, mathematics or a related field
- Programming skills in Python required (Numpy, Pandas, Scikit-learn, Pytorch)
- Hands-on experience in Deep Learning

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form**.

Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de

- Demonstrated interest in working with biological data; practical experience is a plus
- Willingness to learn and ability to think outside the box
- Independent and responsible way of working
- Excellent command of written and spoken English

A PhD degree is not a prerequisite for application. Opportunities to pursue a PhD in this subject area are available during employment.

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- **MEANINGFUL TASKS:** An exciting opportunity to explore a biologically and clinically meaningful topic with opportunities for translation and potential commercialization.
- **TEAM & ENVIRONMENT:** You will work in a motivated team with an international and interdisciplinary focus – at one of the largest research institutions in Europe
- **VACATION:** You will receive 30 days of vacation plus additional days off (e.g. between Christmas and New Year's)
- **KNOWLEDGE & FURTHER TRAINING:** Your professional development is important to us – we provide targeted, individual support
- **HEALTH & WELL-BEING:** Your health is important to us. You can look forward to a comprehensive occupational health management program with a wide range of offerings - e.g., a beach volleyball court, running groups, yoga classes, and much more. In addition, our company medical service and an experienced social counseling team are available to assist you on site
- **WORK-LIFE BALANCE:** Optimal conditions for balancing work and private life, as well as a family-friendly company policy. The option of flexible working (in terms of location) is generally available after consultation and in line with upcoming tasks and (on-site) appointments
- **FAIR REMUNERATION:** Depending on your existing qualifications and the tasks assigned to you, you will be classified in pay grade 13 of the TVöD-Bund (Collective Agreement for the Public Service). All information on the TVöD-Bund collective agreement can be found on the BMI website: <https://go.fzj.de/bmi.tvloed> . The monthly salaries in euros can be found on page 69 of the PDF download
- **FIXED-TERM:** The position is initially limited to 2 years

In addition to exciting tasks and a collegial working environment, we offer you much more: <https://go.fzj.de/benefits>

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

The following links provide further information on diversity and equal opportunities:
<https://go.fzj.de/equality> and on specific support options:
<https://go.fzj.de/womens-job-journey>