



Job Announcement

Assistant with a Doctorate (m/f)

at the Department of Synthetic Biology and Immunology D12

Postdoctoral Position in Synthetic Biology and Protein Engineering

We are seeking an ambitious and creative postdoctoral researcher to join a newly established research group within the Department of Synthetic Biology and Immunology at the National Institute of Chemistry (NIC) in Ljubljana, Slovenia. This full-time position is funded by a European Research Council (ERC) Starting Grant and focuses on engineering of novel enzymes for genome editing.

Project Overview:

The project aims to develop next-generation genome editing tools based on tyrosine recombinases - small enzymes that can precisely manipulate large DNA fragments but are difficult to reprogram for binding selected nucleotide targets. These tools hold significant promise for gene therapies, particularly for diseases involving complex mutations in large genes. The candidate will lead efforts to apply high-throughput screening and bioinformatics for data-driven enzyme engineering. Main tasks will include:

- Design and construction of large DNA libraries
- Development of novel methodologies for high-throughput enzyme characterization
- Optimization of next-generation sequencing workflows and data analysis

Key Tasks and Responsibilities:

- Preparation of material and/or proposals for research and development or scientific projects
- Integration of individual, narrower research problems linked within a research thesis or project
- Independent research in a chosen field of study
- Training and coordinating the work of technical associates and transferring expertise to colleagues
- Preparing manuscripts and technical reports on the work carried out, their presentation and submission to the Head of the Unit and, where appropriate, to external users
- Other duties as assigned by the supervisor.

What We Offer:

- A fully funded 3-year postdoctoral position within an ERC-funded project
- Access to state-of-the-art equipment and opportunities for collaboration with leading experts
- Support for career development, including conference participation, mentoring and grant writing

We offer a flexible mentoring style tailored to your needs and preferences. Whether you thrive with regular feedback or prefer greater independence, we will adapt to support your professional growth.

Salary is competitive and aligned with national standards, including social security and health coverage.





KEMIJSKI INŠTITUT

Candidate Profile:

We are looking for a motivated researcher with a strong background in synthetic biology or protein engineering. We especially welcome candidates excited to lead subprojects and help mentor junior members as the team grows. The candidate is expected to take intellectual ownership of their project, contribute to strategic decisions, and participate in manuscript preparation and dissemination of results.

Required qualifications:

- PhD in biotechnology, molecular biology, biochemistry, synthetic biology, or related fields
- Experience with molecular cloning, bacterial cell culture, next-generation sequencing workflows
- Strong analytical and critical thinking skills and excellent command of English language

Desired experience (not mandatory):

- Familiarity with bioinformatic tools and programming skills (Python, R, or similar)
- Experience with mammalian cell culture and cell-based assays
- A strong publication record in relevant fields, including at least one first-author research article

Why choose Slovenia?

Slovenia combines top-tier scientific infrastructure with a high quality of life and affordable living. Ljubljana is a vibrant, safe, and green city surrounded by nature, with easy access to hiking, skiing, the coast, and cultural events. You will benefit from low cost of living, a supportive, English-speaking research community, and access to EU research networks.

How to Apply:

Send your CV, cover letter (max 1 page) and contact information for 2 referees to: zaposlitev@ki.si and tina.lebar@ki.si until May 31st 2025.

Duration of Employment: The position is for a fixed term, starting upon employment until September 30, 2028, with the possibility of contract extension.

Start Date: As negotiated; start date is flexible but can be as early as summer 2025.

Additional Information: +386 1 4760 424, tina.lebar@ki.si (dr. Tina Lebar)

<http://www.ki.si>

