

The research group „**Nucleic Acid Chemistry**” in the Faculty of Chemistry of the University of Vienna is looking for a

PhD candidate

to work on a bioorganic chemistry project involving a novel approach for the enzymatic synthesis of oligonucleotides at very high throughput using microarray photolithography. The position is to be filled for a period of three years, starting in February 2026.

ROLE WITHIN THE RESEARCH PROJECT

- Incorporate new photosensitive nucleoside triphosphates into oligonucleotides using template independent polymerases
- Develop an automated process for the enzymatic synthesis of oligonucleotides
- Develop the full integration of enzymatic synthesis with conventional microarray photolithography
- Optimize synthetic parameters to reach high coupling and high photolysis efficiency
- Generate complex nucleic acid libraries
- Coordinate with collaboration partners (France, Institut Pasteur)
- Writing scientific articles and participation to symposiums/conferences

PROFILE

- MSc degree in bioorganic/organic chemistry (strongly preferred), biochemistry, synthetic/molecular biology
- Experience in the handling, preparation and analysis of nucleic acids is a strong asset (solid-phase synthesis, triphosphate preparation, PCR, enzymatic reactions, library preparation...). Experience in surface chemistry and reactivity at the solid/liquid interface is appreciated.
- General understanding of sequencing methods, bioinformatics and programming is a plus
- Excellent command of written and spoken English. French and German are a plus
- Excellent teamwork and communication skills, independent, critical thinking and initiative

WORKING ENVIRONMENT AND CONDITIONS

- 30 h/week, salary corresponding to doctorant-level according to the FWF personnel costs (~€39000 brutto/year)
- A stimulating research environment, dedicated to problem-solving and opened to new ideas and hypotheses
- Instrumentation and technology is unique in Europe, with two expert PIs in photolithography and oligonucleotide synthesis
- Access to the benefits and facilities of the University of Vienna, the largest research institution in Austria

ADDITIONAL INFORMATION

- <https://anorg-chemie.univie.ac.at/research/nucleic-acid-chemistry/>

To apply, please send CV and motivation letter, as well as at least one letter of recommendation to Dr. Jory Lietard (jory.lietard@univie.ac.at) no later than 08/01/26.