

The research group „**Nucleic Acid Chemistry**” at the Institute of Inorganic Chemistry of the University of Vienna is looking for a

PhD candidate

to work on an organic/bioorganic chemistry project involving a novel approach for the chemical synthesis of RNA oligonucleotides at very high throughput using a photolithographic array process. The position is to be filled for a period of three years, starting right away.

ROLE WITHIN THE RESEARCH PROJECT

- Incorporate new photosensitive RNA phosphoramidites into oligonucleotides synthesized *in situ* by microarray photolithography
- Synthesize long RNA oligonucleotides at very high density
- Optimize synthetic parameters to reach RNA synthesis throughputs comparable to DNA synthesis
- Generate sequence permutations to study the binding properties of fluorogenic aptamers
- Participate in DNA and RNA library synthesis for gene assembly, sequencing and data storage applications
- Expand high-density array synthesis to chemically-modified nucleoside analogs
- Coordinate with collaboration partners
- 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, phosphoramidite chemistry, PCR, library preparation...)
- 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 (~€31000 brutto/year)
- A stimulating research environment, dedicated to problem-solving and opened to new ideas and hypotheses
- 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 31/01/21.