

The **Leibniz Institute for Food Systems Biology at the Technical University of Munich (Leibniz-LSB@TUM)** is a research institution of the Leibniz Association that combines methods of biomolecular basic research with analysis methods of bioinformatics and analytical high-performance technologies to investigate the complex interplay between the human organism and food ingredients.

Our research group "Transcriptome & Proteome Profiling" at Leibniz-LSB@TUM is looking for a

## Postdoctoral Researcher in Nucleic Acid Chemistry

to start on November 6, 2023 (100% TV-L 13). The position is to be filled for a period of 2 years with the option to extend it to another 2 years.

### Research project:

The position will be in the interdisciplinary nucleic acid chemistry group led by Dr. Mark M. Somoza and is funded by Horizon Europe EIC Pathfinder Challenge on DNA-based digital data storage. The research will focus on the design and chemical synthesis of ultra-large-scale nucleic acid oligonucleotide libraries by means of maskless photolithography. Emphasis will be on modifying the chemistry and photochemistry to find optimal conditions specific to encoding digital data in DNA, and to implement new technologies to improve both synthesis throughput and information density. The oligonucleotide libraries will be tested using standard nucleic acid analytical approaches, including nanopore and next generation sequencing. The research will complement the overall goals of the Pathfinder Challenge to build a complete DNA-based storage system to serve many different industries, including agriculture, food, pharma, and healthcare.

### Essential requirements:

- PhD degree in Chemistry, Biological Chemistry, or closely related fields.
- Experience in synthetic and/or analytical approaches to nucleic acid research.
- Excellent written and verbal English communication skills.
- A good publication track record based on solid laboratory and analytical skills.
- Ability to work both independent and collaboratively across disciplines.
- High self-motivation.
- Willing to travel nationally and internationally for training.

### Desirable:

- Experience with nucleic acid synthesis and quantification
- Experience with DNA sequencing
- Interest in digital information technology, coding and cryptography

### Work environment:

Together with internationally recognized experts, you conduct research aimed at improving foodstuffs and promoting healthy human nutrition.

### In addition to a varied workplace where your performance counts, we offer

- a performance-related salary in accordance with TV-L, in-line with your personal qualifications and the personal prerequisites
- an interesting and stimulating research atmosphere for university research
- a motivated team that is looking forward to welcoming you

- flexible working times enabling, a good compatibility of work and family
- company pension scheme

In the case of essentially reciprocal suitability, severely-disabled applicants as defined SGB IX will be preferred.

Please address any research related questions to Dr. Mark Somoza ([m.somoza.leibniz-lsb@tum.de](mailto:m.somoza.leibniz-lsb@tum.de)) and send your application containing a cover letter explaining your background and motivation, your comprehensive CV and publications list, and names of three potential referees electronically as pdf files to the following address, citing the

reference number **2023-12-S1-MS**:

Katharina Ranner (Human Resources Department) [recruiting.leibniz-lsb@tum.de](mailto:recruiting.leibniz-lsb@tum.de) (please cc [m.somoza.leibniz-lsb@tum.de](mailto:m.somoza.leibniz-lsb@tum.de))

**Take advantage of this opportunity and contact us!**