

Institute of Biomedical Informatics
Faculty of Computer Science and
Biomedical Engineering

Univ.-Prof. Dr. Leila Taher

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UID: ATU 574 77 929

PhD Position

Graz, January 8, 2020

1 position as a University Assistant for 4 years, 40 hours per week, starting as soon as possible, at the Institute of Biomedical Informatics at Graz University of Technology

A position for a doctoral candidate is available in Leila Taher's new lab at the Institute for Biomedical Informatics at Graz University of Technology (Austria, <https://www.bioinfo.tugraz.at>). We develop and apply regulatory genomics and systems biology approaches to analyze large genomic datasets. Our long-term goal is to gain novel insights into the mechanisms and evolution of differential gene expression.

Required academic qualification:

Master's level degree in Bioinformatics, Informatics in the Natural Sciences, Applied Computer Sciences, Molecular Biology, Bioengineering or equivalent.

In addition, the ideal candidate should have

- good programming skills (e.g., Perl, Python, R; see "Beginning Perl for Bioinformatics" by James D. Tisdall and "Developing Bioinformatics Computer Skills" by Cynthia Gibas and Per Jambeck).
- a proven knowledge of Molecular Biology at the level of Benjamin Lewin's "Genes XII".
- a solid understanding of statistics.
- familiarity with UNIX/Linux, including shell scripting.
- experience
 - with the analysis of NGS data, building NGS pipelines (e.g., Snakemake) and using bioinformatics tools; and/or
 - in the field of (human) genomics.
- a high level of organization and attention to detail.
- the willingness and ability to work individually and as part of a team.

And be

- proficient in both written and oral English.
- creative.
- self-motivated, with strong work ethics.
- open-minded.
- Have a strong interest in interdisciplinary research and the ability to work in a team.

Command of the German language is not a requirement but would be an advantage. Practical experience with sequencing technologies (in particular, Oxford Nanopore Technologies) and/or Machine Learning would be valuable assets.

Tasks:

Misregulation of gene expression can cause a broad range of diseases, including cancer. In keeping with the key role that enhancers play in gene regulation, many groups have shown that enhancers are enriched for disease-associated common genetic variants. Thus, genes with redundant enhancers can be expected to be buffered against the effects of disruptive regulatory mutations. The successful candidate will study the evolution of redundant enhancers in human regulatory networks and develop machine learning approaches to model the effects of mutations within redundant enhancers. The data involved in these analyses will be obtained from public data repositories (e.g., ENCODE) or generated by some of our experimental collaborators.

The position is intended to give promising candidates the opportunity to pursue advanced research in Functional Genomics leading to a doctoral degree in Natural (Dr. rer. nat.) or Technical (Dr. Techn.) Sciences. Doctoral candidates are expected to explore and address open research questions in the field of Bioinformatics, contribute to existing projects in the Institute for Biomedical Informatics, present their work at conferences, write scientific articles describing their findings, support teaching, undertake duties in academic self-administration, and actively participate in the activities of the group.

What we offer:

The position is for a fixed term of 4 years and will be paid according to category B1 of the collective agreement for employees of Austrian universities. This currently results in a monthly gross salary in the amount of € 2.864,50 (14 x per year), which may increase on the basis of previous experience.

Application deadline:

February 11, 2020

Position identification number:

7200/20/003

Contact:

If you have questions regarding the position, please write an e-mail to:

Prof. Leila Taher

funcgenfau@gmail.com

How to Apply:

Please, send an e-mail to applications.csbme@tugraz.at indicating the „position identification number” in the subject. An application package must contain the following documents (in English, all in one PDF file):

1. A cover letter with a short explanation for how this position fits into your interests and career aspirations.
2. Your CV.
3. Copies of your transcripts and certificates.
4. Contact information for two references.

Only complete applications will be considered.