

# PhD Position

## Immunosensor for sepsis marker detection in whole blood

You will work on a research project aiming to investigate a new optical immunosensor concept. The overall goal of the project is to detect sepsis biomarkers in blood using reflectometric measurements on a miniaturized Si-phonic platform. The project is funded by an industrial partner.

As a PhD candidate, you will be a member of the Doctoral School of Chemistry and work together with an international team from several disciplines. The project is in collaboration with the Institute of Electrical Measurement and Sensor Systems (Prof. Alexander Bergmann) and the CBmed (Med Uni Graz).

### Responsibilities:

- Investigation of immobilisation techniques to bind receptors to various surfaces
- Investigate binding efficiency of biomarkers binding with fluorescence assays
- Surface treatment to prevent unspecific binding from whole blood components
- Tests of optical immuno-sensing platform with sepsis biomarkers

### Required Skills and Qualifications:

- Master degree in Chemistry, Biochemistry or Biotechnology
- Basic skills in synthetic chemistry and/or coupling techniques for biomolecules
- Experience with standard analytical techniques such as HPLC, MS, fluorescence spectroscopy and photometry.
- Experience with surface chemistry and immobilization of biomolecules is favorable
- Experience with immuno assays is favorable

**Employment:** 30h/week, limited for 3 years, starting earliest Jan. 2022

**Payment:** Gross monthly salary and pay grade in terms of collective agreement for University staff (payable 14 times per year), comparable to FWF PhD, B1, EUR 2.237,60

**Workplace:** TU Graz, Institute of Analytical Chemistry and Food Chemistry, 8010 Graz, Austria

**Deadline for applications:** 15th December 2021

### Please send your job application to:

Assoc. Prof. Torsten Mayr, [torsten.mayr@tugraz.at](mailto:torsten.mayr@tugraz.at)

Graz University of Technology actively strives for diversity and equal opportunities. In particular, decisions in personnel selection procedures must not be based on criteria such as age, gender, ethnicity, religion or belief, sexual orientation or special needs due to a disability to the detriment of the applicants. Graz University of Technology strives to increase the proportion of women, especially in management positions and among scientific staff, and therefore explicitly invites qualified women to apply. Until a balanced number of women is reached, women with the same qualifications will be given priority in the application process.

General requirements:

Travel expenses incurred in connection with the selection procedure will not be reimbursed by Graz University of Technology.