



We advance top-level  
research – and ourselves.

Change starts with us.

## Master's Thesis (m/f/d) Data Science & Statistics - Clustering of High-Dimensional Data

The **Fraunhofer Institute for Toxicology and Experimental Medicine ITEM** is one of 76 institutes of the Fraunhofer-Gesellschaft, Europe's largest organization for application-oriented research. Fraunhofer ITEM's contract research aims to protect people in our industrialized world from health hazards and to contribute to the development of new therapeutic approaches. With a strong focus on respiratory research, the institute's research and development portfolio comprises three business areas: drug development, chemical safety, and translational medical technology.

With around 470 employees at its locations in Hanover, Braunschweig and Regensburg, Fraunhofer ITEM cooperates closely with industry partners, service providers, and universities to generate tangible benefits for both the economy and society. For more than 40 years, we have pursued our vision of "Pioneers for sustainable health" at our founding site in Hanover.

**Are you looking for an exciting project for your master's thesis?**

Then join our »**In silico Toxicology**« department **at the earliest possible date** as a master's student working on the topic »**Methodological Development and Application of Clustering Approaches for High-Dimensional Mixed-Type Data in the VICT3R Project**« at our **Hanover** location, in close collaboration with the project partner at **TU Dortmund University**.

### Be part of change

- As part of the VICT3R project, complex, high-dimensional data sets are generated, containing both metric and categorical variables. Your goal is to identify latent structures and patterns within these data in order to characterize heterogeneous groups of observations in a data-driven manner. Classical clustering methods are only of limited applicability for such settings, so you will apply methodologically adapted multivariate approaches
- Through this methodologically focused master's thesis, you will contribute to the statistical evaluation as well as the further methodological development of the data analyses conducted within the project

### What you contribute

- You are enrolled in a master's program in statistics, data science, or a related field
- You have a strong interest in biological research questions and enjoy working in a systematic, analytical manner
- You have good skills in common programming languages such as R
- You are able to communicate in English and ideally also in German, both written and spoken

### What we offer

- **Your start with impact:** Actively shape the research of tomorrow and advance both society and your career
- **Room for ideas:** With us, you won't just get started in theory, but can also contribute your ideas to exciting projects and a dedicated team of experienced experts
- **Flexible working hours:** Our flexitime model allows you to optimally combine your studies and your work with us
- **Mobile working:** You have the option to work partially from home and from TU Dortmund
- **Company restaurant:** Enjoy your lunch at discounted prices
- **Corporate benefits:** Enjoy attractive discounts from many top brands through our corporate benefits program
- Remuneration is based on the collective agreement for the employment of student assistants
- The position is temporary to support a research project as part of a master's thesis

**Ready for a change? Then apply now and make a difference! Simply scan the QR code and apply online now with your complete application documents. We look forward to getting to know you!**

**If you have any questions about this position, please contact:**

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Requisition Number: 82893

