



Institute of  
Lightweight Design and  
Structural Biomechanics

## Open Position: PhD-Student – University Assistant in Biomechanics

### Description:

We invite applications for a of a PhD Student - University Assistant position in experimental micro- and nano biomechanics. The position is set within a vibrant research group with a main focus on mechanics of individual collagen fibrils and micromechanics of collagen-rich tissues. The research project to be addressed is two-fold:

- 1) Further development of experimental testing devices for micro- and nanomechanical characterization of individual collagen fibrils and microscopic tissue samples. This is based on a unique mechanical testing device for nanoscale fibres.
- 2) Conducting scientific research on the mechanics of individual collagen-fibrils as well as micro-mechanics sections as a function of age, pathology or chemical modification. We have a number of ongoing research projects in this context such that this part will be shaped according to the interests of the applicant.

### Further Tasks:

- Writing of a dissertation on the topic of biomechanics of individual collagen fibrils
- Participation in higher education teaching activities
- Writing and participation in writing of scientific publications
- Presentation of research results at scientific conferences

### Qualifications:

- Completed Diploma- or MSc degree in the area of biomedical engineering, mechanical engineering, physics or electrical engineering or an equivalent university degree
- Knowledge / experience in the area of biomechanics
- Knowledge / experience in computer programming
- Aim to work on a dissertation towards a doctoral degree
- German as native speaker or proof German language abilities of at least level B2 according to CEFR for participation in teaching activities
- Of advantage are: experience in instrumentation, experience in Atomic Force Microscopy, experience with CAD, experience with Matlab experience with LabView, proficiency of English language

### We offer:

- Diverse and exciting work
- Broad internal & external program for transferable skills as well as flexible working hours
- Good accessibility via public transport
- Additional benefits: [Fringe-Benefit Katalog der TU Wien](#)

For further information contact Philipp Thurner at [philipp.thurner@tuwien.ac.at](mailto:philipp.thurner@tuwien.ac.at)

To apply use this link: <https://jobs.tuwien.ac.at/Job/145238> until March 4<sup>th</sup> 2021