



Institute of Biomechanics
Head: Gerhard A. Holzapfel, Ph.D.
Professor of Biomechanics

PhD Student wanted in Experimental Biomechanics for a Scientific Project in Graz, Austria

Gerhard Sommer, Ph.D.

Assistant Professor Graz University of Technology, Austria

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Graz: February 11, 2021

Open PhD Position

One position for a **PhD Student in Experimental Biomechanics** for 3 years, fully employed; expected **April 15, 2021** at the Institute of Biomechanics in Graz, Austria.

<u>Acceptance conditions:</u> M.Sc. in (Bio)mechanical Engineering, Electrical engineering, Physics or related field and experience with desire to pursue a PhD degree.

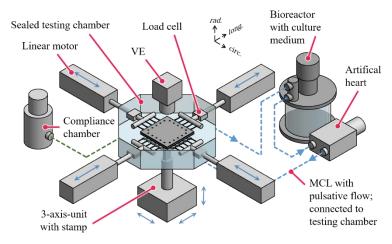
<u>Requested qualifications:</u> Knowledge in the areas of design (Inventor, SolidWorks, AutoCAD or similar), development methodology, production engineering, solid mechanics; interest in automation and control, biomechanics and experimental laboratory work; desire to work in a multidisciplinary, collaborative team environment; fluent English is required.

The PhD Student will be integrated into a collaborative team to design and built a testing bench able to induce artificial injuries on blood vessels under realistic conditions and to detect the resulting mechanical changes in the vascular tissue.

Sealed testing chamber

Linear motor

Compliance chamber



The project aims to improve our understanding of damage mechanisms during coronary stent implantation (CSI). Vascular damage during CSI needs to be reduced since it is shown to be the most potent stimulus for in-stent restenosis. The long-term goal of this project is to develop a material damage model, which can be used in finite element analyses to optimize stents and stent delivery systems.

Please send your application (cover letter, sample of written work such as the Master Thesis, CV, and contact information for 2 references) to Gerhard Sommer (see above).

End of the application date: March 30, 2021