Institute of Biomechanics
Center for Biomedical Engineering
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Ph.D. Student wanted in **Experimental Biomechanics** for **Multidisciplinary EU-Project Graz, Austria**

Graz: August 3, 2009

Announcement

One position for a **Ph.D. Student in Experimental Biomechanics** for 3 years, fully employed; expected from January 1, 2010 at the Institute of Biomechanics in Graz, Austria.

Acceptance conditions: M.S. in (Bio)mechanical Engineering, Physics or related field and experience with desire to pursue Ph.D. degree.

Requested qualifications: Knowledge in the area of solid mechanics, and interest in biomechanics, design and experimental laboratory work; desire to work in multidisciplinary, collaborative team environment, and in cooperation with other Universities; fluent English is required.

The Ph.D. Student will be integrated into an international collaborative team to perform mechanical testing of biological soft tissues (arteries, thrombus) and related analysis. The project aims to improve patient safety during cardiovascular disease treatment by enhancing new and promising, minimally-invasive catheterization procedures, and will provide surgeons with novel visual and haptic tools for robust and accurate catheter guidance. To enhance patient-specificity, the project will include extensive uniaxial and biaxial soft tissue experiments, correlating material behavior to patient factors (e.g., age, gender, pathology…). Image-based, patient-specific finite element modeling of the cardiovascular system will allow the calculation of local tissue stresses and deformations due to instrument manipulations during a procedure, facilitating clinically relevant haptic feedback and estimates of tissue damage.

Please send your application (cover letter, CV and contact information for 2 references) to the following address:

David M. Pierce, Ph.D.
Graz University of Technology
Institute of Biomechanics
Center of Biomedical Engineering
Kronesgasse 5/I
8010 Graz, Austria

End of the application date: **December 1, 2009**