

Experimental Joint Biomechanics

Research:

- Knee biomechanics
- Knee laxity assessments
- *In vitro* physiological simulations
- Kinematics during daily activities
- Evaluation of total knee prostheses
- ACL injury simulation

Collaborating Faculty:

FEA probabilistic and wear models: P. Rullkoetter (U. Denver) and M. Taylor (U. Southampton)

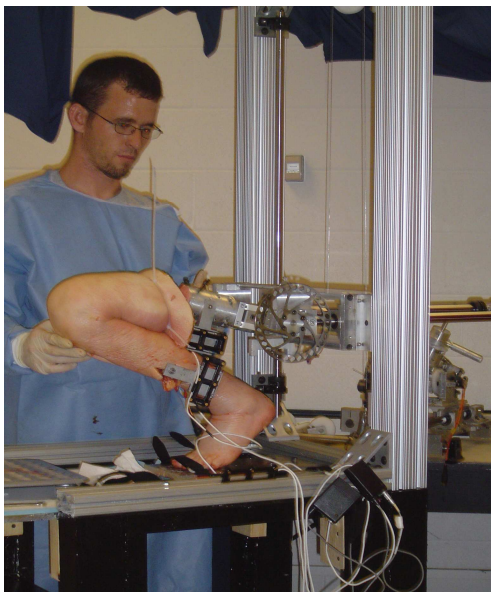
Anthropometric characterization: D. FitzPatrick (U. College Dublin)

MRI biomechanics measures: A. Lerner (U. Rochester)

Multi-scale Modeling: T. Guess (UMKC)

Equipment:

Five-axis servo-hydraulic knee simulator; Quasi-static knee loading rig; OptoTrak motion measurement system; Ligament strain measurement (DVRT); 6 Degree of Freedom Triaxial load cell; Two axis digital inclinometer



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Courses:

Product Design, Design for Manufacturability, Dynamics, Biomechanics

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