Prof. Kirsten Legerlotz

Faculty of Humanities and Social Sciences
Department of Sports Sciences
Department of Training and Movement Sciences



Expertise
Professor Legerlotz is head of the Movement Biomechanics research group in the Department of Training and Movement Sciences. The research team focuses on different aspects of tendon adaptation. This includes the adaptation of connective tissues to strain in general and also the emergence, rehabilitation and prevention of tendon injuries in particular. Current research analyses the effect of changing hormone levels on the mechanical properties of the female tendon and training interventions that are used to treat athletes with tendinopathy.

Scientific Services
The departments offers three large laboratories with modern sports science equipment:

- Motion Analysis Laboratory with a VICON system including twelve cameras and three AMTI force plates. Both the foundations of the force platforms as well as the camera mounts are decoupled from the sports ground of the laboratory to prevent the transmission of vibrations.
- Force Diagnostic Laboratory with DAVID and Technogym strength diagnostics equipment for all major muscle groups
- EMG laboratory with a Biodex System-3 and an Esaote ultrasound machine, which is used to study the muscle-tendon plasticity. To control the joint angle at the Biodex camera, mounts are available for installing eight VICON cameras. A large LCD-Screen provides the possibility for biofeedback.

All labs are air-conditioned and are equipped with an uninterruptible power supply and complete darkening.

Testimonials
Various projects with Olympic Centre Berlin (Olympiastützpunkt Berlin), from training adaptation to injury prophylaxis

Topics / Trends
Popular, Leisure & Competitive Sports
Health
Pharma(ceuticals)
Rehabilitation

Industries
Healthcare & Life Sciences
Administration

Mentor for Startup
SURF ERA

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