

Groningen Lectures in Movement Sciences (GLMS)

Friday 14 March, 13.00-14.00 Boeringzaal

Lecturer: Philipp Baumert, Scientific Director of the Research Group for Orthopaedic Sports Medicine and Injury Prevention at UMIT Tirol, Austria.

ACL Injuries, Return to Sport, and Assessment: Current Insights and Future Directions

Anterior cruciate ligament (ACL) injuries are among the most devastating sports-related injuries. This lecture will begin by exploring the incidence and trends of both primary and secondary ACL injuries, with a focus on the mechanisms behind their occurrence. Traditional laboratory tests often fail to replicate the dynamic demands of sports activities. Mixed reality-based testing can bridge this gap by incorporating dynamic, externally focused tasks into the assessment process. Preliminary data on sport-specific external focus jumps will be presented, illustrating how this approach may more accurately mimic real-world athletic movements.

The lecture will provide an overview of the current challenges in ACL injury management and propose innovative solutions, shedding light on how these developments can improve outcomes for athletes.

Presenter: Dr. Philipp Baumert is the Scientific Director of the Research Group for Orthopaedic Sports Medicine and Injury Prevention at UMIT Tirol, Austria. In this role, he focuses on the prevention and rehabilitation of ACL injuries, investigating their biomechanical, muscular, and genetic aspects.

Biography: Philipp Baumert studied Sport and Performance at the German Sports University Cologne (Bachelor's degree) and Sports Medical Training & Clinical Exercise Physiology at the University of Frankfurt (Master's degree), Germany. Between 2015 and 2019, he completed his PhD at Liverpool John Moores University (UK), focusing on individual injury risk responses to intense physical exercise. From 2019 to 2023, he conducted postdoctoral research in molecular muscle physiology at the Technical University of Munich (Germany), with research visits to the University of Jyväskylä (Finland), where he investigated the mechanisms by which skeletal muscle hypertrophy rewires glucose metabolism. Additionally, he co-leads a mentoring programme for early-career scientists organised by the German Society of Sport Science (dvs).