TIRM

TRANSLATION IN REGENERATIVE MEDICINE



T I R M – S Y M P O S I U M

„Osteotomy Plus Around the Knee“

03 – 05 DECEMBER 2026

Regensburg · Germany

www.tirm2026.de



IN COOPERATION WITH

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#TIRM2026

Welcome to TIRM Congress 2026

TIRM 2026 will bring together leading experts from research, clinical medicine, rehabilitation, and industry to explore the role of osteotomies around the knee in modern joint-preserving treatment strategies. Particular emphasis will be placed on the interaction between lower limb alignment and regenerative therapies for cartilage, meniscus, and ligament disorders.

In its unique format, TIRM focuses on the translation of scientific innovations into clinical practice, providing a platform for interdisciplinary exchange, discussion of emerging concepts, and the integration of the latest advances in regenerative orthopaedics.

Scientific Direction:	Prof. Dr. Peter Angele Prof. Dr. Johannes Zellner
Congress Secretary:	PD Dr. Dominik Szymski
Venue:	Herzogsaal Domplatz 3 93047 Regensburg | Germany
Website:	**www.tirm2026.de** – full programme, registration and travel information
Registration:	Silvia Wintermeier silvia.wintermeier@sporthopaedicum.de
Congress Office:	Telefon: +49 (0) 941 698596214, +49 (0) 941 698596215 silvia.wintermeier@sporthopaedicum.de
Registration Fee:	100,– € 90,– € for AGA members
Single Day:	60,– € 30,– € for BFV trainers

Continuing Medical Education. Fortbildungspunkte (CME credits) for this congress have been applied for at the **Bayerische Landesärztekammer (BLÄK)**. The number of credits awarded will be announced on www.tirm2026.de and at the registration desk.

Patronage & certification
AGA – Gesellschaft für Arthroskopie und Gelenkchirurgie (Gütesiegel Patronat)
QKG – Patronat
DKG – Deutsche Kniegesellschaft (zertifiziert)

Route Map:



TIRM – Scientific Programme

Talks: 8 min + Discussion: 2 min | All times approximate | www.tirm2026.de

THURSDAY 3.12.2026

Welcome (17:00 – 17:05) *Peter Angele, Johannes Zellner*

Osteotomy and Patellofemoral Disorders · 17:05 – 19:15

Chair: Kaywan Izadpanah, Jörg Dickschas

- Current concepts for stabilization of the patella – which patella needs more than a MPFL
  Holger Grehn
- Evidence in Coronal Osteotomy for patella stabilization
  Julian Mehl
- Psychological factors in return to activity after distal femur osteotomy for patella instability
  Andrea Achtnich
- How to rotate the leg: proximal femur, distal femur, proximal tibia, distal tibia, plate, nail?
  Jörg Harrer
- Osteotomy of the Tibial Tuberosity – Indications and Limitations
  Thomas Tischer
- Sagittal TTTG – a new player?
  Peter Balcarek
- Osteotomy of the Patella – Option for high grade Patella Instability
  Jörg Dickschas

Mini-Battle: Osteotomy versus Trochleaplasty · 20 min · Moderation: Peter Balcarek

- Derotational Osteotomy for patella stabilization
  Florian Imhoff
- Trochleaplasty for patella stabilization
  Holger Grehn

- Different Cartilage Composition and biomechanic properties in tibiofemoral and patellofemoral knee compartment – implication for cartilage regeneration
  Johannes Zellner
- How much degeneration can be accepted for patellofemoral regeneration – preclinical perspective
  Sebastian Kopf
- How much degeneration can be accepted for patellofemoral regeneration – clinical perspective
  Philipp Niemeyer
- What additional bony procedure does patellofemoral cartilage repair really need?
  Johannes Zellner

Break · 10 min

Future Perspectives in Osteotomy · 19:25 – 20:05

Chair: Thomas Tischer, Philipp Niemeyer

- How can AI change the orthopedic world – future perspectives in orthopedic research
  Giuseppe Filardo
- AI for planning an osteotomy
  Marco-Christopher Rupp
- Do we still need long leg x-rays – AI based prediction of the leg axis on plain knee radiographs
  Stefan Nehrer
- Future perspectives of osteotomy – how can Virtual Reality help the surgeon in the OR
  Kaywan Izadpanah

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FRIDAY 4.12.2026

Anatomy / Pathophysiology of Osteotomy · 08:00 – 09:20

Chair: Philipp Schuster, Jörg Harrer

- Effect of biomechanical load on cartilage
  Stefan Nehrer
- Anatomical consideration of the vasculature around the knee for regeneration
  Robert Smigielski
- Effect of angiogenesis and different mechanobiological stress on osteotomy and fracture healing
  Georg Duda
- 3D Motion Analysis for the Optimization of HTO
  Igor Komnik
- Motion Analysis Following Unloader Bracing and High Tibial Osteotomy: A Clinical Perspective
  Gerrit Bode
- Difference between fracture repair and healing of osteotomy
  Matthias Krause
- Preclinical and clinical perspective of bone healing
  Dominik Szymski
- Influence of immune system on fracture / osteotomy healing
  Melanie Haffner-Luntzer

Break · 10 min

Accuracy of Osteotomy · 09:30 – 11:00

Chair: Georg Duda, Gerrit Bode

- What did we learn about the 'goal' in osteotomies around the knee? – Historical view
  Philipp Lobenhoffer
- Planning of osteotomy
  Philipp Schuster
- How accurate can we perform an osteotomy?
  Jörg Harrer
- Gender specific differences in osteotomy – do we have different angles to aim for?
  Rebecca Sänger
- How much help gives PSI?
  Matt Dawson
- Preclinical perspective of optimal osteotomy – what did we learn from large animal models?
  Felix Mayr
- Clinical perspective of optimal osteotomy – when to address over- and under-correction
  Anna Bartsch
- Where to correct (single / double level)?
  Sebastian Leutheuser
- Expectations of patients planned for osteotomy
  N.N.

Break · 10 min

Milieu for Regeneration of the Knee I · 11:10 – 12:10

Chair: Giuseppe Filardo, Sebastian Kopf

- Tool box for cartilage regeneration
  Christian Lattermann
- Osteotomy and cartilage regeneration – when to correct the axis?
  Gerrit Bode
- Preclinical aspects for joint regeneration without osteotomy
  Girish Pattappa
- Joint regeneration without osteotomy
  Philip Rösler
- Subchondral bone and its influence for regeneration – preclinical perspective
  Patrick Pann
- Subchondral bone and clinical perspectives for regeneration
  Lukas Willinger

Lunch · 12:10 – 13:30

TIRM – Scientific Programme

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13:30 – 18:00

Milieu for Regeneration of the Knee II · 13:30 – 14:50

Chair: Christian Lattermann, Stefan Nehrer

- Can osteotomy by itself regenerate the cartilage?
  Philipp Niemeyer
- How cartilage repairs following surgical joint distraction in humans
  Tonia Vincent
- Potential of knee distraction for joint regeneration – clinical perspective
  Ronald van Heerwaarden
- Importance of meniscus for regeneration
  Peter Verdonk
- Osteotomy to support meniscal reconstruction: when to correct the axis?
  Sebastian Kopf
- How much inflammation can be accepted for regeneration?
  Christian Lattermann
- Orthobiologics for regeneration in the knee
  Giuseppe Filardo
- Conservative treatment for regeneration / alignment
  Martin Dietmaier

Break · 10 min

Limits of Osteotomy · 15:00 – 16:20

Chair: Philipp Niemeyer, Philip Rösler

- **Keynote:** Decision making process for osteotomy versus uni arthroplasty and clinical limits · **20 min**
  Philipp Lobenhoffer
- Preclinical limits for osteotomy – Biomechanical aspects
  Elmar Herbst
- Clinical limits to perform osteotomy due to complex deviation
  Jörg Dickschas
- Autologous, allogenic bone, cement or scaffolds – do we need to support bone healing in open wedge osteotomy?
  Dominik Szymski
- Limits of osteotomy and smoking
  Peter Verdonk
- Limits of osteotomy and BMI
  Lukas Willinger
- Limits of osteotomy and age
  Johannes Weber

Break · 10 min

Complications and Trauma · 16:30 – 18:00

Chair: Volker Alt, Philipp Lobenhoffer

- Failed Osteosynthesis after tibial plateau fracture – when and how to correct
  Julian Fürmetz
- Failed Osteotomy – is an arthroplasty the only option?
  Peter Angele
- Arthritis Progression after Osteotomy – partial knee or total knee arthroplasty
  Philipp von Roth
- Technique of osteotomy and influence on conversion to total knee arthroplasty
  Guido Heers
- Tips and tricks to avoid hinge fracture
  Daniel Günther
- When does a hinge fracture need additional stabilization – biomechanical considerations and timing
  Elmar Herbst
- Preclinical aspects of osseous infection
  Martijn Riool
- Infection after osteosynthesis around the knee joint
  Volker Alt
- Neurovascular damage during osteotomy
  Jörg Dickschas

SATURDAY 5.12.2026

Osteotomy and Knee Instability · 08:00 – 09:50

Chair: Romain Seil, Mirco Herbort

- Preclinical perspective of osteotomies plus knee instability around the knee
  Andrew Amis
- Coronal malalignment and ACL-/PCL-instability
  Felix Ferner
- Coronal malalignment and peripheral knee instability
  Adrian Deichsel
- Slope correction in humans: indication and surgical technique
  Philipp Mayer
- Intraarticular loss of meniscus/cartilage – Influence on knee stability – implication for extra- and/or intraarticular correction
  Sven Scheffler
- Development and validation of a predictive score for indicating lateral extra-articular procedures in ACLR with/without bony malalignment
  Matthieu Ollivier
- Pathologic Slope and Primary ACL-rupture – slope correction yes
  Daniel Günther
- Pathologic Slope and Primary ACL-rupture – no slope correction
  Romain Seil
- Pathologic slope and coronal malalignment in ACL-instable knee joint
  Matthieu Ollivier

Mini-Battle: ACL Revision & Knee Instability · 20 min · Moderation: Florian Imhoff

- Indication for correction of sagittal bony malalignment and knee instability
  Thomas Stein
- How much bony malalignment in ligament instable knee joints can be corrected by pure ligamentous stabilization
  Mirco Herbort

Break · 10 min

Osteotomy and Open Physis · 10:00 – 11:15

Chair: Sven Scheffler, Daniel Günther

- Preclinical aspects of the physes around the knee joints
  Andreas Pitsilides
- Osteotomy with open physis – options in coronal plane
  Oliver Loose
- Physis sparing correction of alignment around the knee – rotational correction
  Zagorka Pejin
- Slope correction in instable knee joints with open physis
  Alexander Korthaus
- ACL reconstruction with open physis
  Romain Seil
- Patellar luxation with open physis
  Sven Scheffler
- Are young soccer players at higher risk of a varus deformity?
  Clemens Memmel

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