

First INTERREG - 6<sup>th</sup> TERMIS

# Winterschool 2018

"Mechanobiology in Musculoskeletal Tissue  
Regeneration - In Vitro/In Vivo Preclinical  
Models and Imaging"

Radstadt – Austria  
January 14<sup>th</sup> -17<sup>th</sup>, 2018

Society of the Advancement of Research in Shock and Tissue Regeneration

# Program

Sunday, January 14<sup>th</sup>

16:00-18:05 / 18:35-19:45

## Welcome

16:00: Heinz Redl

## Cell sources

16:15-16:45: "Adipose Derived Cells – Enzymatic and Non-Enzymatic Isolation"  
*Eleni Priglinger*

16:55-17:25: "Cells from Human Derived Waste Materials"  
*Susanne Wolbank*

17:35-18:05: "G protein-coupled Receptors in Mechanobiology"  
*Severin Mühleder*

❧ BREAK ❧  
18:05-18:35

## In Vitro Systems

18:35-19:05: "Bioreactors in Musculoskeletal Tissue Engineering"  
*Philipp Heher*

19:15-19:45: "Skeletal Muscle Tissue Regeneration: Biomaterials and Microtechnologies"  
*Sahar Salehi*

Monday, January 15<sup>th</sup>

08:30-11:40

## In Vitro Systems

08:30-09:00: "Lab-on-a-Chip Technologies for BioScience Applications"  
*Peter Ertl*

09:10-09:40: "3D Bioprinting"  
*Aleksandr Ovsianikov*

## Open Innovation

09:50-10:20: "Open Innovation in Science"  
*Veronika Hruschka*

## Tendon & Ligament

10:30-11:00: "Tendon Degeneration and Repair - Lessons from Tendon Development and Ageing?"  
*Andreas Traweger*

11:10-11:40: "Silk as versatile Biomaterial for Musculoskeletal Tissue Engineering"  
*Andreas Teuschl*

🌀 BREAK 🌀  
11:40-16:30

**Monday, January 15<sup>th</sup>**

**16:30-19:00**

## Angiogenesis & Prevascularization

**16:30-17:00:** “Angiogenesis and organotypic Vasculature”  
*Wolfgang Holnthoner*

**17:10-17:40:** “Pre-clinical Testing and Characterization of Shockwave Therapy”  
*Paul Slezak*

**17:50-18:20:** “Biophysical Therapies in Regenerative Medicine and their Impact on Vascularization”  
*Peter Dungal*

## Neuro

**18:30-19:00:** “Regeneration of the Nervous System- mechanisms and Models”  
*David Hercher*

**Tuesday, January 16<sup>th</sup>**

**08:30-11:40 / 16:30-17:40**

## Muscle

**08:30-09:00:** “Hippo Pathway in Heart Development and Disease”  
*Giancarlo Forte*

**09:10-09:40:** “Role of Muscle Satellite Cells in Health and Disease”  
*Pete Zammit*

Tuesday, January 16<sup>th</sup>

08:30-11:40 / 16:30 – 17:40

## Muscle

**09:50-10:20:** “A focus on satellite cell function in human skeletal muscles”  
*Nicolas Figeac*

## Cartilage

**10:30-11:00:** “Cartilage and Tendon Engineering: Large Animal Models”  
*Gil Oreff*

**11:10-11:40:** “Cartilage Engineering: From **Bench** to Bedside”  
*Sylvia Nürnberger*

❧ **BREAK** ❧  
**11:40-16:30**

## Bone

**16:30-17:00:** “The clinical Impact of delayed Bone Healing and Non-Union in Long Bone Fractures”  
*Albert Kröpfl*

**17:10-17:40:** “Cell-based vs. cell-free Approaches for Bone Regeneration”  
*Darja Marolt*

❧ **SOCIAL EVENT** ❧  
**18:00**

**Wednesday, January 17<sup>th</sup>**

**08:30-10:40**

## Imaging

**08:30-09:00:** “From nice Pictures to solid Data“  
*Pavol Szomolanyi*

**09:10-09:40:** “Hard Tissue Histology-Methods and Quantitative Evaluation“  
*Stefan Tangl*

**09:50-10:20:** “Morphological In Vitro Methods: From life Cell Imaging to high Resolution  
electron Microscopy“  
*Sylvia Nürnberger*

**10:30-11:00:** “Micro-CT Imaging of Materials and Tissues in Preclinical Models“  
*Patrick Heimel*

**11:10-11:40:** “Assessment of Bone Scaffold Deformation Behaviour using 4D Microtomography“  
*Dan Kytir*

🌀 **Closing Remarks** 🌀

## Registration

**Early bird registration until December 12<sup>th</sup>**

**There will be space for posters in the meeting room and an organized poster  
discussion with the lecturers during the coffee breaks.**

### **Contact Address:**

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