



University of  
Zurich <sup>UZH</sup>

Institute for Regenerative  
Medicine (IREM)



# Colloquium

## Clinical Colloquium Regenerative Medicine

**Monday, 3<sup>rd</sup> Dec 2018 at 1–2pm,  
Institute for Regenerative Medicine (IREM),  
University of Zurich, Wagistrasse 12,  
WAD-904 (Founders Lab), 8952 Schlieren**

**Prof. Dr. Karin Wuertz-Kozak,**

Laboratory for Immunoengineering & Regenerative Medicine,  
Institute for Biomechanics, D-HEST, ETH Zurich

### Engineering therapeutic approaches to modulating inflammation

Numerous prevalent chronic diseases have a pathophysiologically important inflammatory component. However, the initial stimuli as well as the associated molecular receptors and pathways leading to dysregulated inflammation are essentially unknown in many of these pathologies. In mechanosensitive tissues, altered mechanotransduction has emerged as a contributing factor to inflammation, although via mostly undetermined mechanisms generally labeled with the term mechano-immunosensing. Advanced discovery of mechanisms and treatments for these inflammatory diseases are clearly needed, but require a multifaceted and interdisciplinary approach. This talk will focus on the processes leading to pathological inflammation in the intervertebral disc (and its association to back pain) and will describe ways of engineering therapeutic approaches to modulate it.

**Organiser:** Prof. Dr. Dr. Simon P. Hoerstrup / Prof. Dr. Roger M. Nitsch

**Execution/Chair:** Dr. Steffen M. Zeisberger / Dr. Christian Tackenberg

IREM, University of Zurich

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