

## Special Issue

# Biology of Cartilage Cells and Cell Signaling with Emphasis on Osteoarthritis and Its Risk Factors

### Message from the Guest Editors

Chondrocytes are the only cells in articular cartilage and are largely responsible for maintaining a healthy structure of the extracellular cartilage matrix. In doing so, they ensure a balance between cartilage-building and cartilage-degrading processes. The destruction of cartilage as occurs in the development of osteoarthritis (OA) is due to a disturbed balance between those processes that maintain cartilage. Based on the characterization of various risk factors leading to OA, mechanisms in this context that ultimately influence the physiology of chondrocytes are not yet clearly, or only schematically, mapped in detail. A more precise elucidation, in particular, of the interplay of extracellular signaling processes associated with OA risk factors, their transformation into intracellular signaling processes, and their misregulation in OA chondrocytes compared with healthy cartilage may lead to a better understanding of the onset of disease. Insights into which of the signal transduction cascades may be out of control in OA chondrocytes compared with healthy cells and subsequent systematic characterization could lead to the evaluation of new pharmacological targets in OA therapy.

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### Deadline for manuscript submissions

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