



Micromechanical Structure of the Pericellular Coat of Living Chondrocytes

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Abstract: We aim at elucidating the structure and micromechanical properties of the pericellular coat enveloping chondrocytes. This highly hydrated layer composed of flexible hyaluronan polymers and proteins plays a vital biological role in cell proliferation, motility and embryogenesis. Yet the micromechanical structure is poorly understood. Therefore, we perform microrheological measurements within this layer on living chondrocytes. The obtained structural information is compared to measurements performed with and confocal fluorescent microscopy.



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