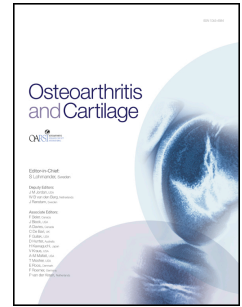


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Comprehensive protein profiling of synovial fluid in osteoarthritis following protein equalization

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Title: Comprehensive protein profiling of synovial fluid in osteoarthritis following protein equalization

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Running Title: **Protein profiling of synovial fluid in OA**

Abstract

Objective: The aim of the study was to characterise the protein complement of synovial fluid (SF) in health and osteoarthritis (OA) using liquid chromatography mass spectrometry (LC-MS/MS) following peptide-based depletion of high abundance proteins.

Design: SF was used from nine normal and nine OA Thoroughbred horses. Samples were analysed with LC-MS/MS using a NanoAcquity™ LC coupled to a LTQ Orbitrap Velos. In order to enrich the lower-abundance protein fractions protein equalisation was first undertaken using ProteoMiner™. Progenesis-QI™ LC-MS software was used for label-free quantification. In addition immunohistochemistry, western blotting and mRNA expression analysis was undertaken on selected joint tissues.

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