Senescent Synoviocytes in Specific Regions of Osteoarthritic Knees Correlate With Disease, Biomarkers, Synovitis, and Knee Pain

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Presented at ACR/ARP Annual Meeting, November 6–13 2019, Atlanta, GA

Knee Regions Assessed for Synoviocytes Severity Using a Semi-Quantitative Scoring System With GE-MRI

Number of Patients, Total and p16+ Counted Cells and Synovitis Score Per Biopsy

Representative IHC Images From 3 Anatomical Regions In Different Patients

Regional Subset p16 Correlation With WOMAC-A

Regional p16 and WOMAC-A Correlation With Synovial Fluid Biomarkers (Luminex panel)

Regional p16 and WOMAC-A Correlation With Synovial Fluid Biomarkers (Proteomics)

Conclusions

- p16+ cells are found in the synovial tissue of knee OA patients
- The level of p16+ cells in selected regions of the synovium correlates with clinical markers of pain, tissue degeneration and synovitis
- Several synovial fluid biomarkers have been identified based on their correlation with p16 burden in specific synovial tissue regions and with pain
- Together these results provide a strong rationale for senolytic therapies for knee OA

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