



MUSCULOSKELETAL SCIENCES

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Dear Dr. Bajaj,

01/16/2020

Enclosed please find our second revision for our manuscript entitled “Standardized Histomorphometric Evaluation of Osteoarthritis in a Surgical Mouse Model”.

We thank the editor for their thorough review and insightful comments. Please find attached herewith the revised manuscript with all the comments and critiques addressed.

The protocol described in this manuscript uses the computerized and semi-automated OsteoMeasure system to establish a standardized, rigorous, and reproducible quantitative methodology for the evaluation of changes in cartilage and other joint components in osteoarthritis. This protocol presents a powerful addition to the existing systems, and allows for more efficient detection of changes in osteoarthritis.

We have highlighted the part to be scripted for videography. Please note that the script will focus on histomorphometry and not all the previous steps, since all the previous steps: mouse sacrifice, tissue processing and embedding, sectioning and staining, have been previously described in details, with some being available as *JoVe* videos.

In summary, the protocol detailed here provides a clear guide for a rigorous and reproducible computerized and semi-automated quantitative approach to investigate OA pathology or evaluate therapeutic interventions.

We sincerely hope you find our manuscript of interest to the audience of *JoVe*.

Best regards,

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