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Discussion with Reviewers

F. Mwale: Would the levels of proteoglycan and collagen contents be similar to native cartilage levels? This is the minimum requirement for the formation of a “high quality tissue engineered human hyaline cartilage”.

Authors: The quantitative mRNA expression results showed that the engineered cartilage has not reached the fully mature level as compared to the native cartilage, since both type I and type II collagen mRNA were expressed at higher levels compared to the native cartilage. However, ITS supplementation did promote the production of higher quality engineered cartilage.

F. Mwale: It is not clear why TGF- β 2 was used? Would TGF- β 1 have similar effects?

Authors: TGF- β 2 was used because it is more potent than other members in the same family (Olney *et al.*, 2004). Thus, we did not use TGF- β 1.

F. Mwale: The authors describe the morphology of the cells grown under different conditions in detail, but do not explain what constitutes the desired morphology. It is also not clear what the EM micrograph adds to the paper.

Authors: Chondrocytes appeared in polygonal shape at differentiation state (early culture) and became elongated when dedifferentiated, changing it to fibroblastic-like characteristic. EM micrograph was used to describe the ultra-structural organization and extra-cellular matrix arrangement in engineered cartilage with or without ITS supplementation.

F. Mwale: Do the authors envisage a paracrine effect in the nude mice?

Authors: The experiment on paracrine effect in the nude mice was not done.