

Author's Reply to the Review Report 1

We are grateful to the reviewer for their positive and constructive comments that have led to an improved manuscript. Here, we address only their concerns/suggestions and have tracked changes throughout the revised manuscript.

Point 1: I would only suggest a widening of literature references, also considering some more recent works that came out, and hence a deeper discussion when comparing results with state-of-art.

Response 1: Further references to previous literature have been added throughout the text.

Namely: In the introduction two recent papers reviewing regenerative devices (line 46-48), a more recent reference to relative implant micromotion (line 54), reference to the first DVC study in the introduction (line 72) with a brief overview of the technique (lines 66-72), reference to a previous ovine model study of this length (line 83) and reference to previous work with the same material to clarify why it was chosen for this study (lines 83-89). In the discussion comparison to a DVC paper considering micromotion of an implant on *ex-vivo* porcine bone has now been referenced (lines 338-340) and further comparison to recent relevant DVC studies is now included (lines 354-372).