ACCSCIENCE PUBLISHING

International Journal of Bioprinting

RESEARCH ARTICLE

Enhancing osteogenesis using 3D-printed porous tantalum scaffolds: A biomechanical, *in vivo*, and *in vitro* study

Supplementary file

(A) Supplementary figures

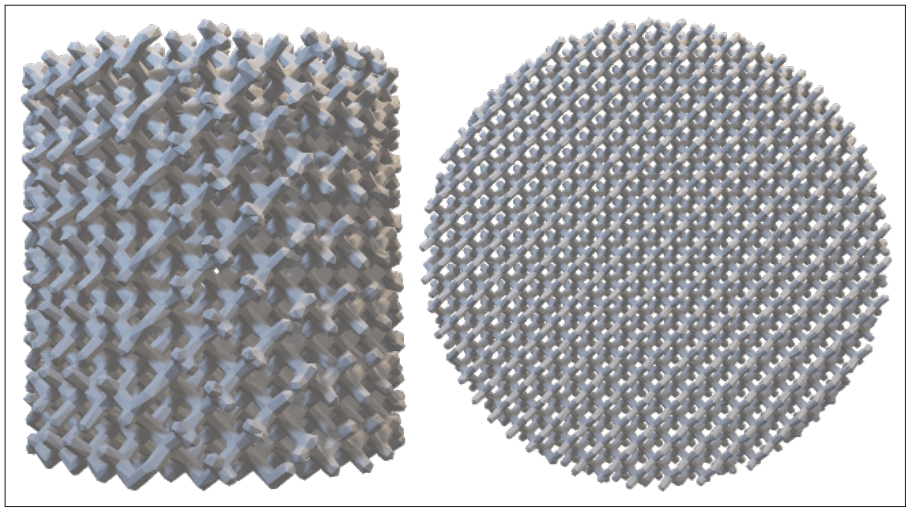


Figure S1. Three-dimensional scaffold design presented in STL format for additive manufacturing.

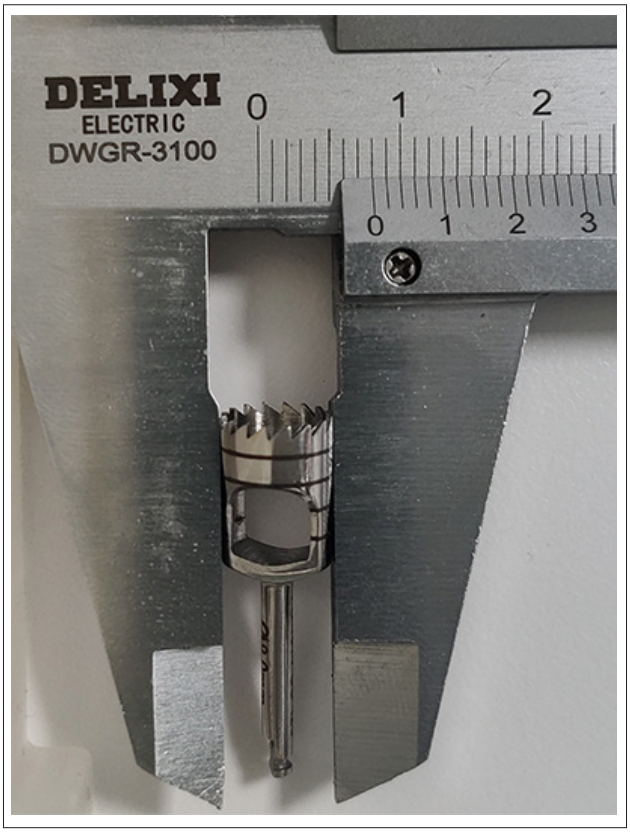


Figure S2. Hollow drill used during the animal model surgery.

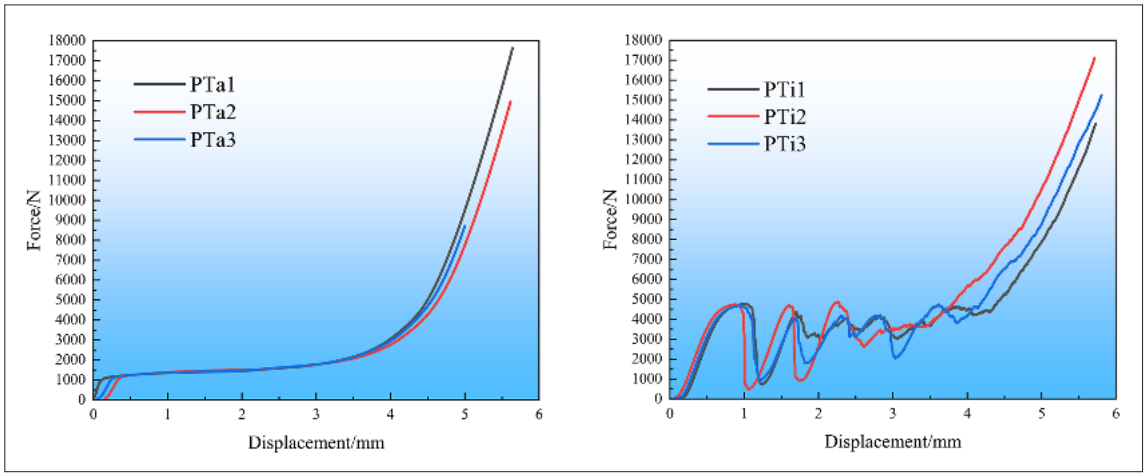


Figure S3. Force displacement curves of two types of brackets. Abbreviations: PTa, porous tantalum; PTi, porous titanium alloy.

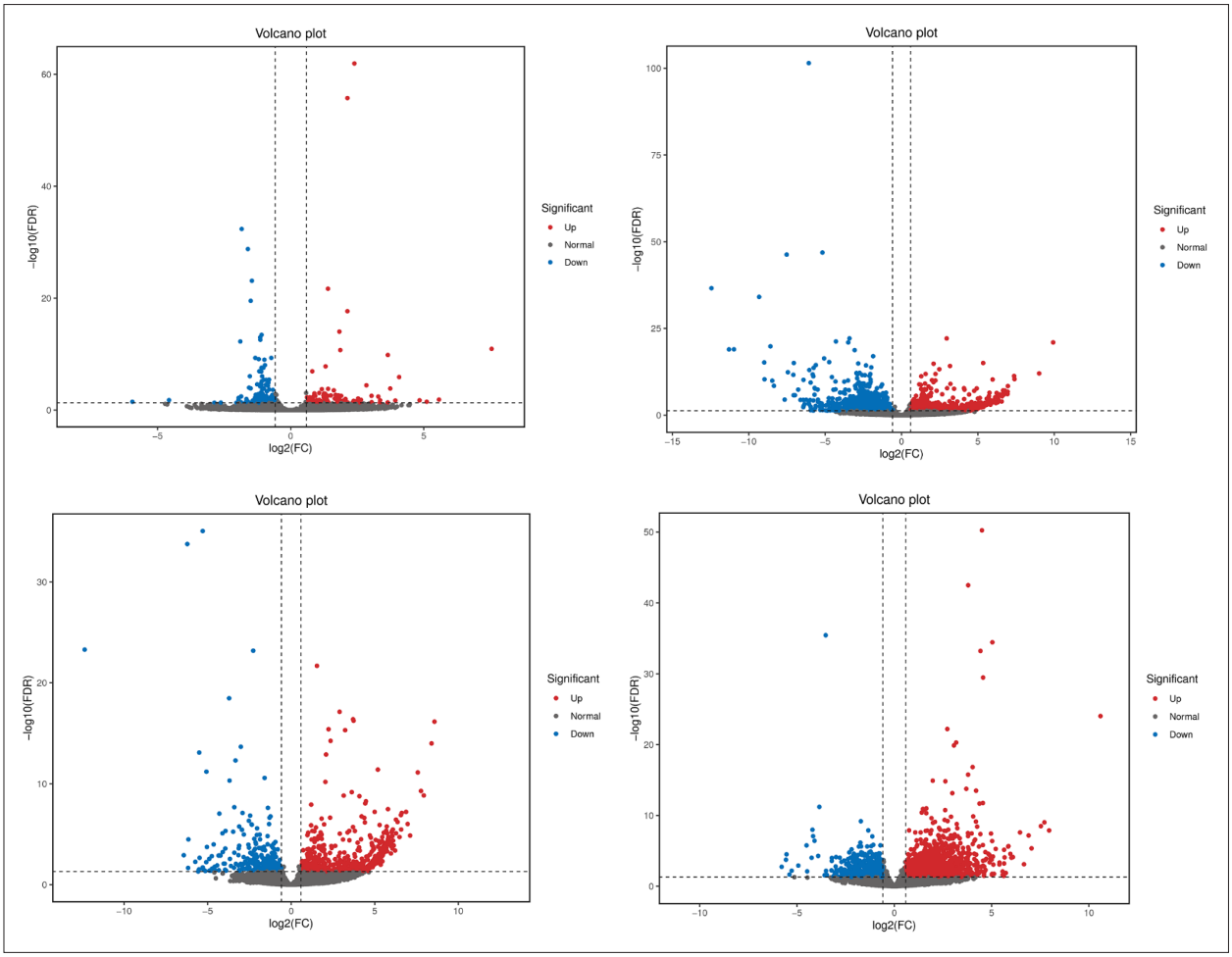


Figure S4. Volcanic maps of RNA sequencing (in the same order as the main text). Abbreviations: FC, fold change; FDR, false discovery rate.

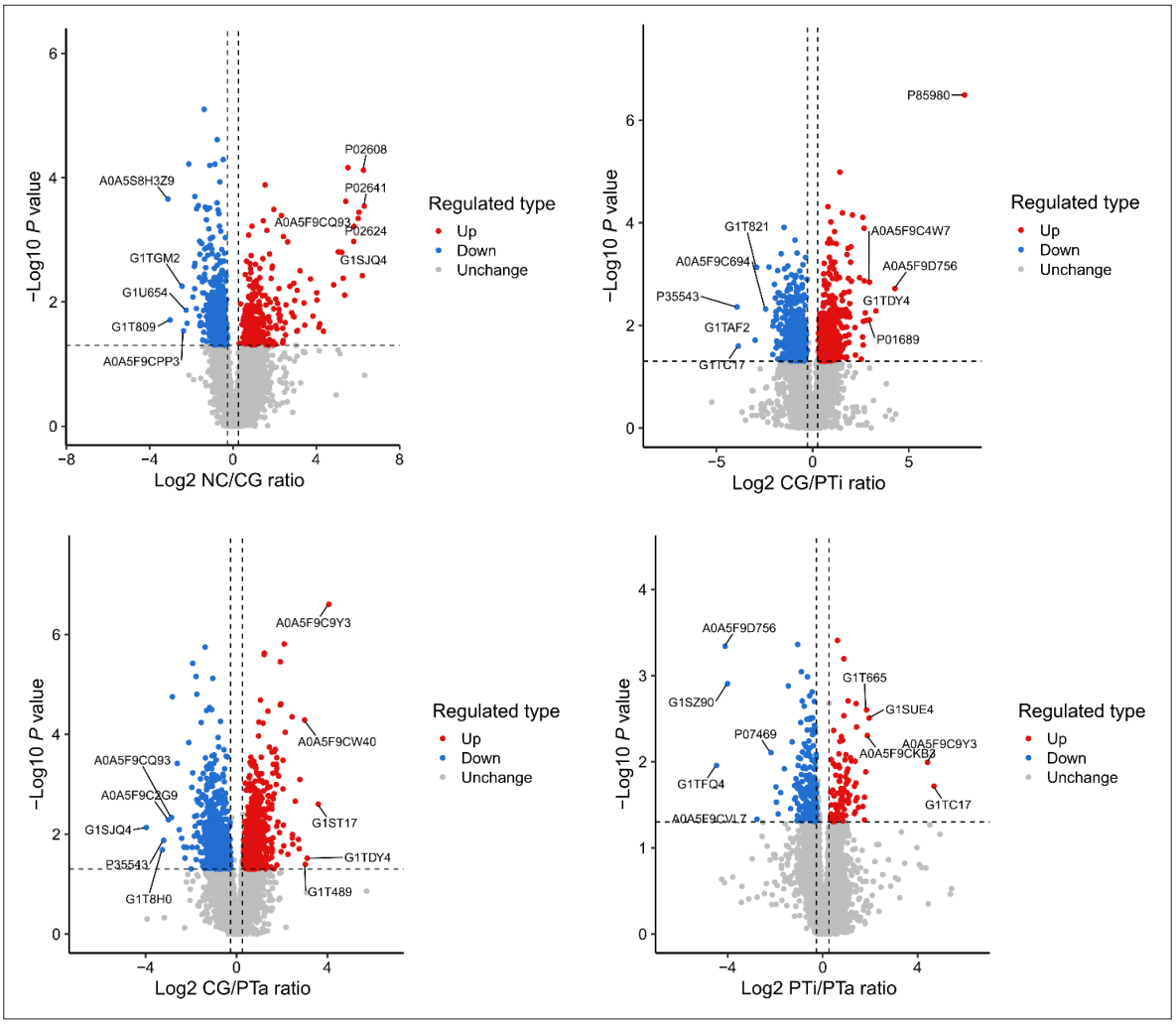
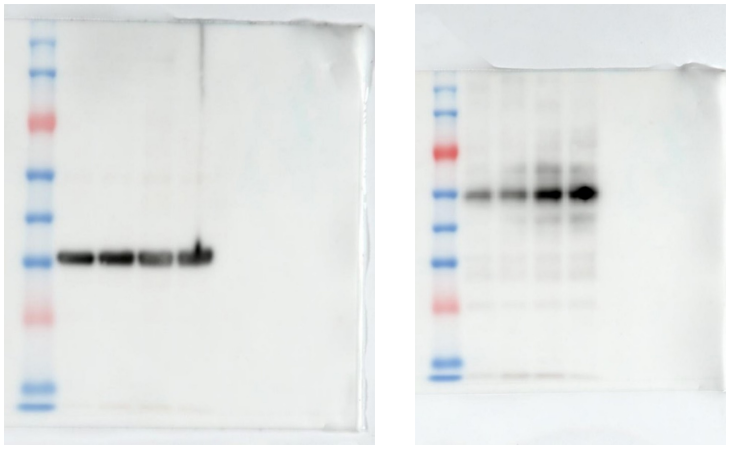


Figure S5. Volcanic maps of proteomics (in the same order as the main text). Abbreviations: FC, fold change; FDR, false discovery rate.

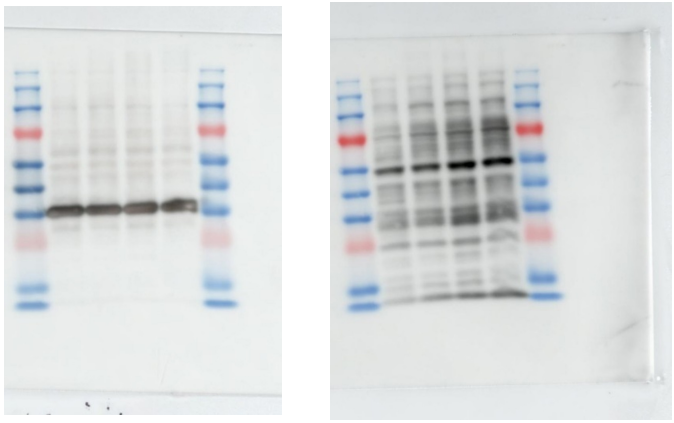
(B) Raw western blot images (Figure 2H)

Repeat one

BMP-2/GAPDH



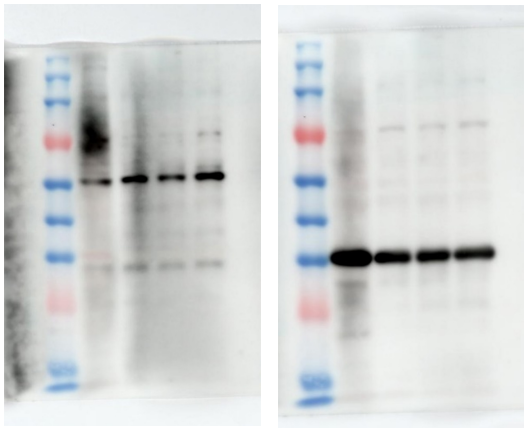
RUNX2/GAPDH



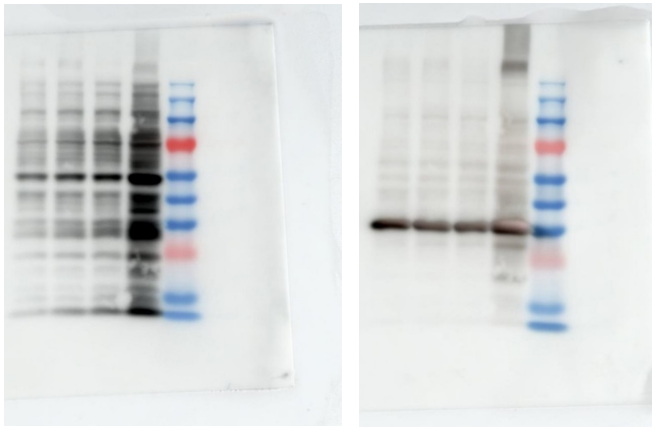
P-SMAD/SMAD/GAPDH

Repeat two

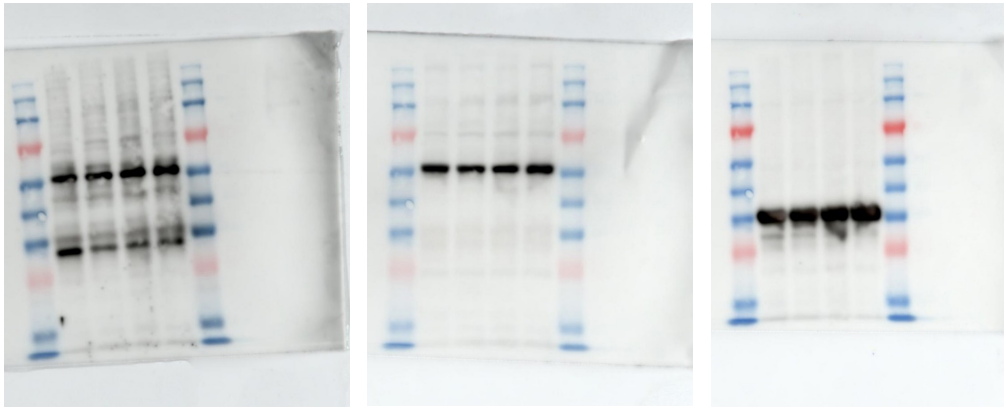
BMP-2/GAPDH



RUNX2/GAPDH

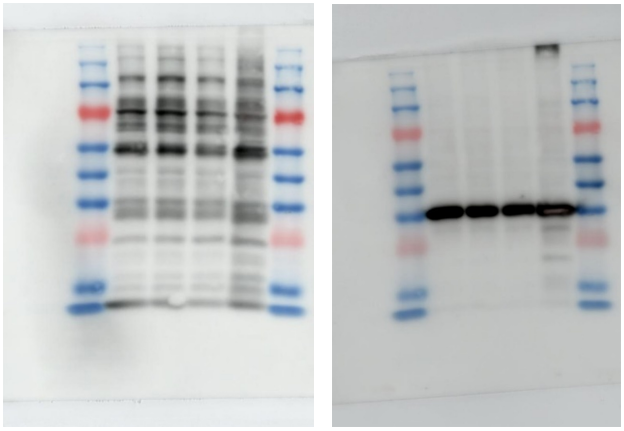


p-SMAD/SMAD/GAPDH

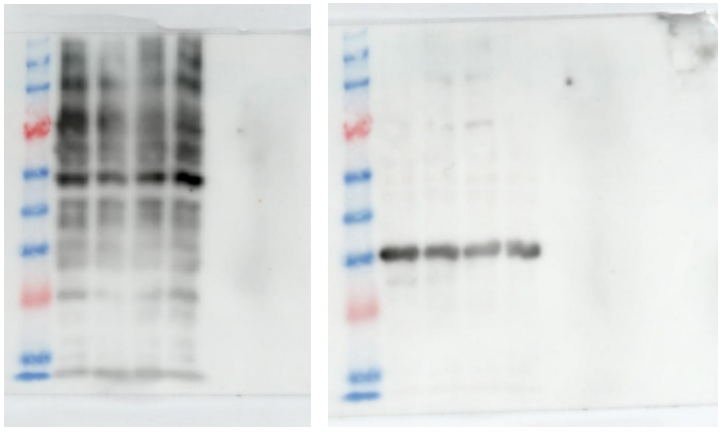


Repeat three

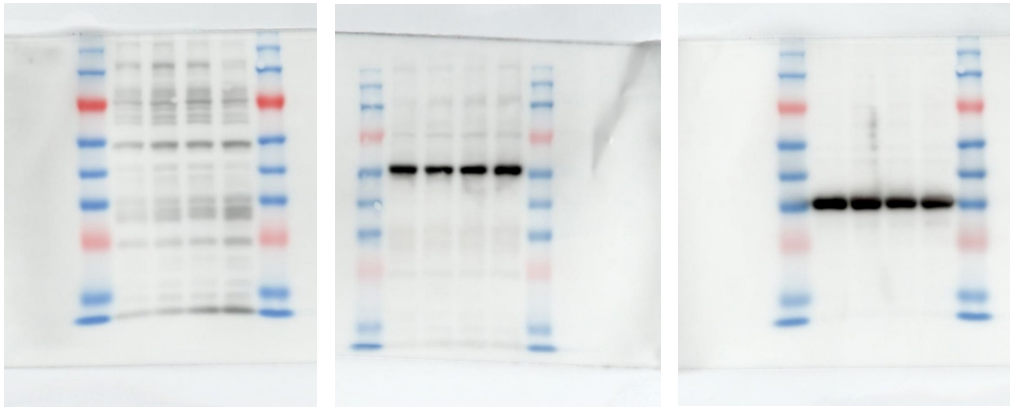
BMP-2/GAPDH



RUNX2/GAPDH



p-SMAD/SMAD/GAPDH



Abbreviations: BMP-2, bone morphogenetic protein 2; GAPDH, glyceraldehyde 3-phosphate dehydrogenase; p-SMAD, phosphorylated SMAD; RUNX2, runt-related transcription factor.