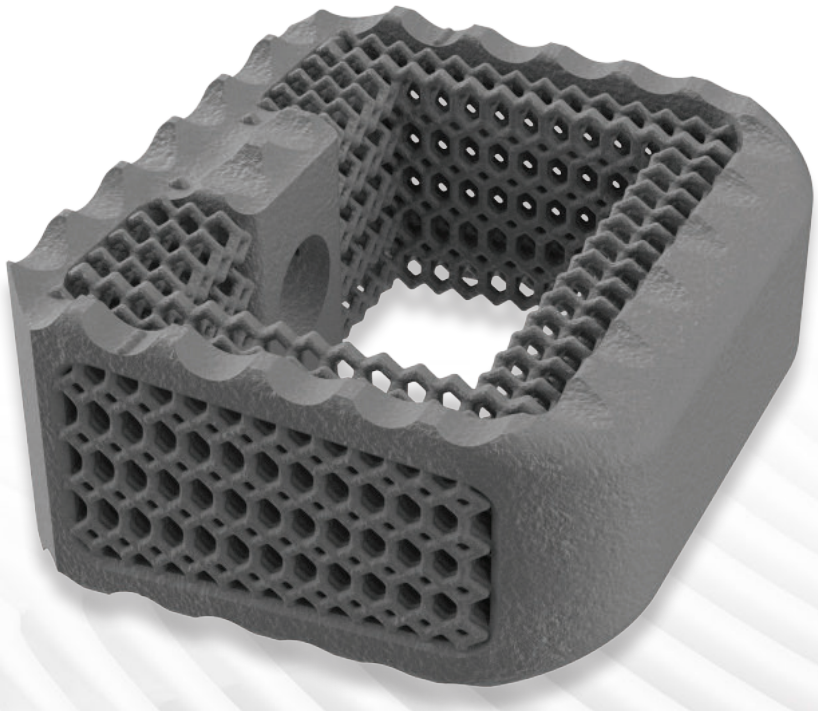
TrellOss™-C

Porous Ti Interbody System

A New Foundation
For Growth



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TrellOss™-C

Porous Ti Interbody System

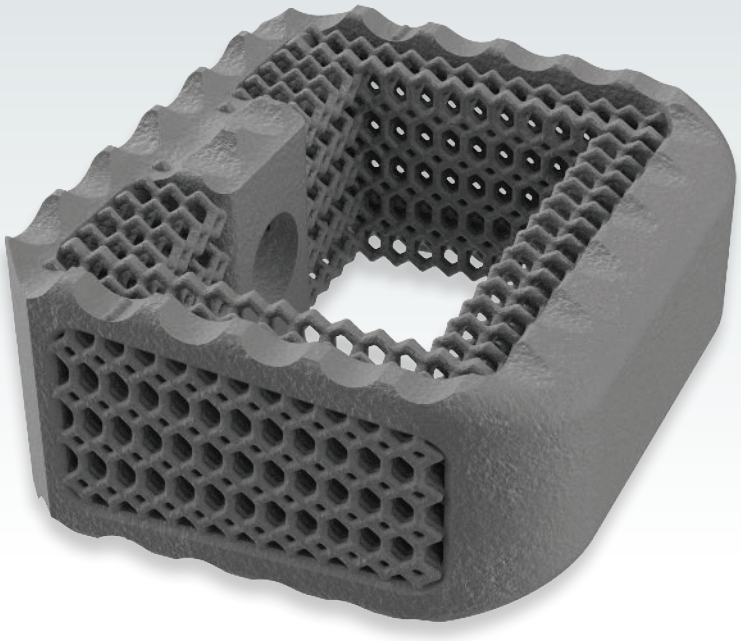
A 3D printed titanium interbody platform featuring a scaffold structure with 70% porosity and a 7 micron roughened surface topography to foster a cellular relevant environment for adhesion and bone ingrowth.[1]

TrellOss-C Implant

- Rigid teeth help to resist implant migration
- Central window for graft packing and containment
- Implants are sterile-packed for reduced risk of contamination and hospital reprocessing costs
- Zero-profile inserter for access and visualization of disc space
- Removable depth stop for inserter/trials to accommodate surgeon preference

TrellOss-C Sizes

HEIGHTS	FOOTPRINT	LORDOSIS
5mm - 12 mm	12 mm x 14 mm	6° | 0°
5 mm - 12 mm	14 mm x 16 mm	6° | 0°



A New Foundation for Growth

Porosity

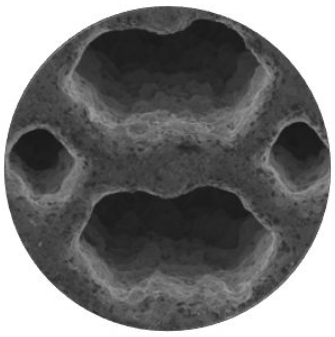
Open architecture with 70% porosity including varying pore sizes of 300, 500, and 700 microns that mimic cancellous bone allowing for a conducive environment for cellular activity[1,5,6,7]

Structure

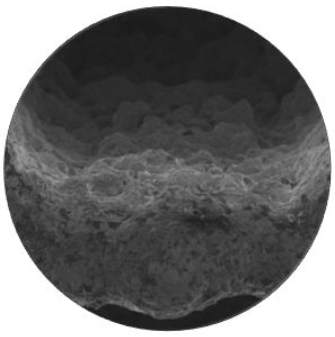
Scaffolding structure provides additional surface area[2,3] and an elastic modulus similar to PEEK[8]

Texture

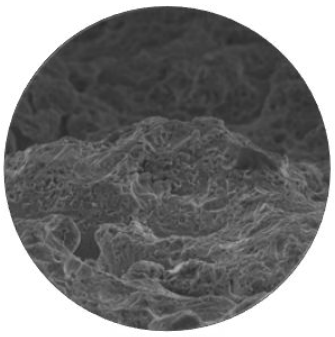
7 micron surface texturing enhances the wicking nature[9] and creates an environment for potential cellular adhesion[2,3,4]



SEM image of TrellOss Surface at 50x magnification



SEM image of TrellOss Surface at 100x magnification



SEM image of TrellOss Surface at 450x magnification

References

1. McGilvray KC, Easley J, Seim HB, et al. Bony ingrowth potential of 3D-printed porous titanium alloy: a direct comparison of interbody cage materials in an in vivo ovine lumbar fusion model. Spine J 2018;18(7):1250-1260.
2. Olivares-Navarrete R, Hyzy SL, Slosar PJ et al. Implant materials generate different peri-implant inflammatory factors: poly-ether-ether-ketone promotes fibrosis and microtextured titanium promotes osteogenic factors. Spine 2015;40(6):399 -404.
3. Olivares-Navarrete R, Hyzy SL, Gittens RA, et al. Rough titanium alloys regulate osteoblast production of angiogenic factors. Spine J 2013;13(11):1563 -70.
4. Rao PJ, Pelletier MH, Walsh WR, et al. Spine Interbody Implants: Material Selection and Modification, Functionalization and Bioactivation of Surfaces to Improve Osseointegration. Orthop Surg 2014;6:81 -89.
5. Ponader S, von Wilmowsky C, Widenmayer M, et al. In vivo performance of selective electron beam-melted ti-6al-4v structures. J Biomed Mater Res A 2010;92A:56 -62.
6. Li JP, Habibovic P, et al.: Bone ingrowth in porous titanium implants produced by 3D fiber deposition. Biomaterials 2007;28:2810.
7. Karageorgiou V, Kaplan D. Porosity of 3D biomaterial scaffolds and osteogenesis. Biomaterials 2005;26(27):5474 -91.
8. Permeswaran, V., (2019) Elastic Modulus Characterization of Porous Titanium TrellOss™ Structure, 2922.1-GLBL-en-REV1219, ZimVie Spine, Westminster, CO
9. Permeswaran, V., (2019) Measuring the Wicking Nature of Porous Titanium TrellOss™ Structure, 2921.1-GLBL-en-REV1219, ZimVie Spine, Westminster, CO

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