CT scanning for CAD of porous structures optimized for bone regeneration.

Micro-CT of ECM from stem cells on PPF scaffolds

FEA provides patient-specific stiffness information used to print porous NiTi as stiffness-matched fixation to prevent stress shielding during bone regeneration.

Resorbable Magnesium Fixation with Controlled Degradation

Post-processing techniques for Magnesium alloys provides better mechanical properties and control of degradation rate to match bone regeneration rate. Fixation with resorbable magnesium can allow for strong fixation and eliminate the need for second-stage removal surgery.

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