Docket #: S23-229

Modular Bioactive Synthetic Bone Graft Technology (MST)

Researchers at Stanford have developed a biodegradable device and platform carrier of biologics for promoting faster bone healing of large bone defects, fractures, and non-union. This technology is designed, fabricated, and tested to meet multiple implementation criteria including: complex defect geometry, porosity, fabrication via 3D printing technology, biodegradation, growth factor delivery, and surgical implantation procedures. This invention is continued research of work disclosed in Stanford docket 20-447 "HyTEC:Hybrid Tissue Engineering Construct"

Stage of Development
Large animal studies

Applications

- Bone healing of large bone defects, fractures, and non-union
- End users include: Orthopedic Surgeons, Dentists, Veterinary Surgeons, Researchers, Patients,

Advantages

- Promote faster and stronger bone healing
- Easy surgeon adoption and implantation
- Versatile platform technology for biological delivery

Patents

- Published Application: WO2025259487

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