



THE FUTURE FOR BONE FILLING MATERIAL

KEYWORDS

Bone filling
Hybrid material
Therapeutic

CONTEXT

More than two million bone grafts are performed annually worldwide to fill bone gaps in orthopedic surgery, neurosurgery and dentistry. Actively promote the regeneration of bone in the body, or reconstruct real bone grafts in the laboratory is what the bone tissue engineering intends to lead in the term.

TECHNOLOGY

Our new organic-inorganic material behave as a single phase to impart new and unique properties. The new composition combined with its macroporous structure allows mechanical properties similar to that of trabecular bone. They also guarantee the integrity of the material in the bone regeneration.

Bioactivity is provided by the nature of the inorganic component of the hybrid material. The bioactive glass stimulates the bone regeneration process by the controlled release of its components, the mineralization of the implant and the stimulation of the cell activity.

Our hybrid material:

- Can be sterilized under radiation.
- Is non-cytotoxic (ISO 10 993 SOP test).
- Is biocompatible according ISO 10 993, in small animals
- is tested for osteoconduction under ISO 10 993, in small animals.
- is tested for osteostimulation according to ISO 10 993.

BENEFITS

Benefits to patients

- Better handling.
- Complete and fast resorption.
- No risk of pathogens.

Benefits to practitioners

- Ease of handling.
- Radiological monitoring of bone reconstruction.

Benefits to manufacturers

- Complete range of bone filler material from dental to orthopedic and veterinary applications.
- Appealing manufacturing costs.
- Less stringent regulation.

INTELLECTUAL PROPERTY

- Priority filing (2 patent applications) 2013 and 2014
- US, CA, EP and HKG extensions

PARTNERSHIP

Licensing

RESEARCH TEAM

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