

Functionalizable & bioinspired bone adhesive

Keywords

- **Bone adhesive**
- Innovative calcium phosphate cement
- **Osteoinduction**
- **Bioactive**
- Resorbable
- Easy to use



Intellectual **Property**

Priority patent application filed on 17/12/2021 Good Preliminary Research Report

National phases in June 24

Technology

Bioinspired biomimetic glue (Phosphocalcic cement) composed of:

- Phosphocalcic ceramics
- O-phospho-serine (commercially available) inspired from Sea Worm glue
- Nano particles of polyDOPA (nPDA) = laboratory know-how, inspired from Mussel glue
- Aqueous solvent



Phosphocalcic ceramics



O-phospho-serine inspired from Sea Worm Glue



inspired from Mussel Glue



Development Status

- In vitro POC: antibacterial efficacy of the functionalized glue
- In vivo POC: allograft model in rats
- TRL 3-4
- Scientific publication submitted

Benefits

- Bio-inspired
- Strong adhesion in wet physiological environment
- Biocompatible
- Sterilizable
- Biodegradable
- Simple and fast design
- Reproducible
- Easy to handle
- Ability to store biological or therapeutic agents (Antibiotics, Pain killers...)
- Osteoinductive

Partnership

Licensing

Possibility of co development

Applications

- Fracture
- Arthrodesis
- Dental implants
- Autograft

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