MBCP™ Bone Graft Technology

MBCP™ Technology

Biphasic matrix

PERMEABLE
3D interconnected scaffold helping cells spread

1/3 Micropores < 10µm
2/3 Macropores 300-600µm

RESORBABLE
Real chemical synthesis: homogenous distribution of 60% HA (Hydroxyapatite) and 40% TCP (Tri Calcium Phosphate)
Thin crystalline structure

BONE REGENERATION
Simulates the osteoblastic response: proliferation and differentiation
100% regeneration into cortical or cancellous bone

BIOACTIVE
Biphasic Calcium Phosphate
Short term dissolution and precipitation process into micropores

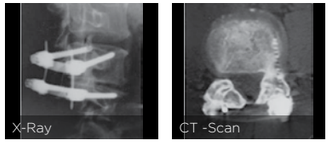
SAFE
100% Synthetic
No disease transmission
30 years of clinical background

PREDICTABLE
New vital bone
Keep volume and mechanical stability

OSTEOCONDUCTIVE
Macropores guides bony cells into the depth of the MBCP™ implant.

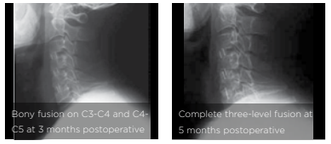
EASY
Complete product line: granules, sticks, inserts.
5 year shelf life

Lumbar Spinal Fusion

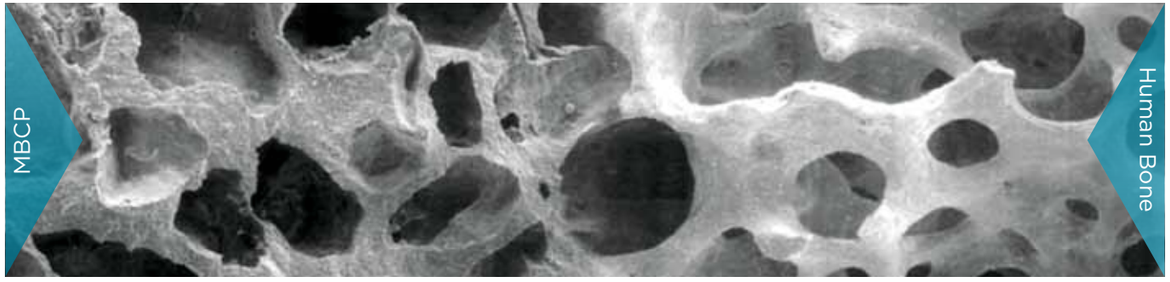


Macroporous Calcium Phosphate Ceramic: A Prospective Study of 106 Cases in Lumbar Spinal Fusion, Rémi Cavagna, Guy Daculsi and Jean-Michel Bouler, Journal of Long-Ten Effects of Medical Implants, 9(4):403-412(1999)

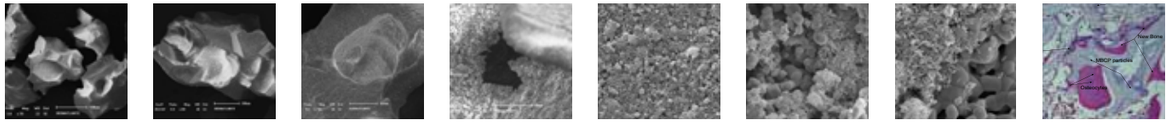
Cervical Spinal Fusion



Cage containing a biphasic calcium phosphate ceramic (Triosite) for the treatment of cervical spondylosis, Der-Yang Cho, Wuen-Yen Lee, Pon-Chun Sheu, Chun-Chung Chen, Surgical Neurology 63-497-504 (2005)



SIGNAL → RECRUIT → PROLIFERATE → DIFFERENTIATE



Inserts

Custom-made insert

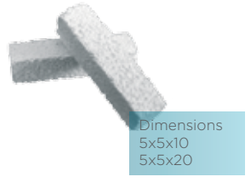
Cervical and Lumbar Fusion Solution

Granules

Vials
From 2cc to 30cc
Granulometry :
1-2mm and 2-3mm

Sticks

Posterolateral Graft



Dimensions
5x5x10
5x5x20

Stimul'Os™

Syringe
5cc - 10cc
Granulometry : 1-2mm

Biomatlante Therapeutical Solutions

Recommended Solution •••
Secondary Solution ••
Alternative Solution •

CE 0123

INDICATIONS	MBCP™ Granules	MBCP™ Sticks	Stimul'Os™	Inserts Custom-made	In'Oss™ Moldable Cohesive
Cervical Fusion in association with a cage	•			•••	••
Lumbar Fusion in association with a cage	•			•••	••
Posterolateral Graft	•	••	••		•••
Bone Cocktail with Autograft	•		•••		
Bone void filler	•		••		•••

Biomatlante
Biologics Solutions
eXpert in bone regeneration

Innovative

Spinal Bone Graft Solution
Moldable

IN'OSS™ Moldable Synthetic Bone Graft

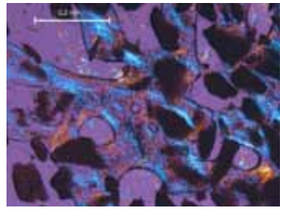
In'Oss™ is an innovative and unique moldable bone graft, developing on MBCP™ Technology.

Developped to improve clinician handling during bone grafting procedures, In'Oss™ can fit into the different sizes and shapes of the grafting sites.

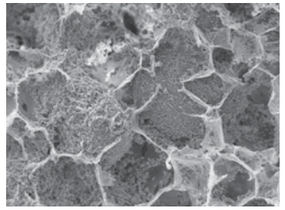
In'Oss™, is an optimal balance of MBCP™ micro granules and an absorbable hydrogel, acting as a carrier for rapid vascularization and mineralization.

In'Oss™ preserves the original graft shape and bone volume. It is gradually absorbed within a few months and is replaced by vital architectured bone.

Resorbable / No wash-out/
Maintains volume stability / Superior handling characteristics



4 months bone remodelling with haversian system - Goat model



Interconnected structure between the microporous granules and hydrogel

Unique Concept for Bone Augmentation

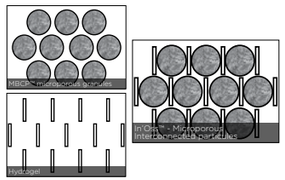
In'Oss™ is an interconnected microporous structure.

The Hydrogel creates extra spaces for cells spreading and fluid diffusion between MBCP™ microporous particles.

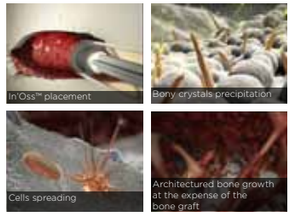
In'Oss™ chemistry encourages the rapid formation of natural bone and the growth of capillary blood vessels throughout the matrix.

These materials have been shown to be perfectly biocompatible and absorbable.

Patented

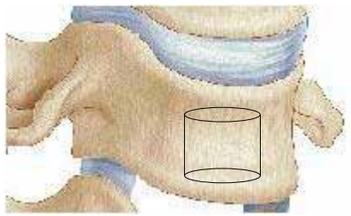


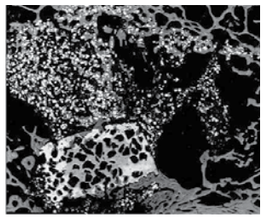
Easy and Fast

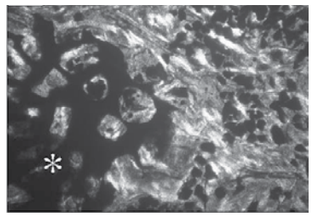


Syringe
1ml - 2.5ml
5ml - 10ml

Minimal invasive Spine Surgery

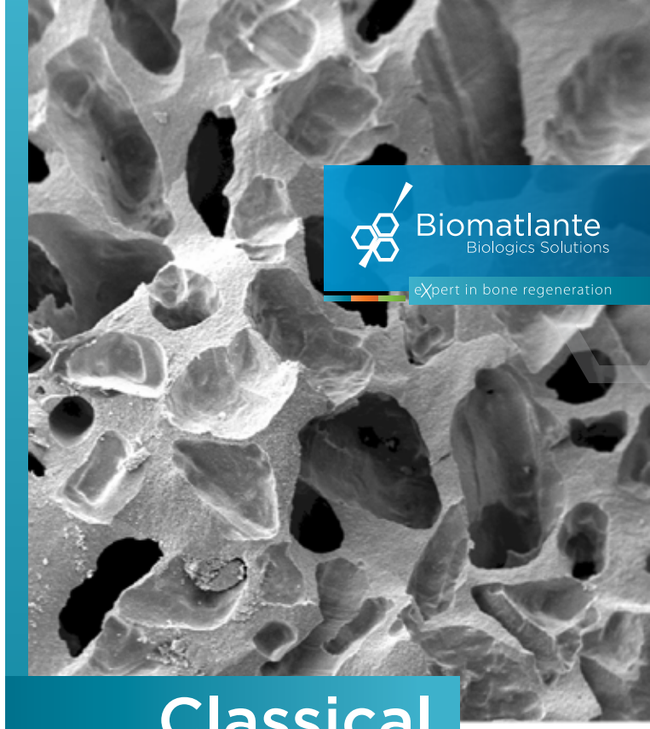






Photos From the courtesy of Prof. Daculsi

Minimal invasive surgery in spine, new development of injectable ceramic MBCP for vertebral body bone filling: in vivo experiment, G. Daculsi, H. Mousselard, E. Goyenvalle, P. Pilet, S. Delplace, E. Aguado, Key Engineering Materials Vols. 284-286 (2005), pp.803-806



Biomatlante
Biologics Solutions
eXpert in bone regeneration

Classical

Spinal Bone Graft Solutions
MBCP™ Technology