



# ADVANCED ALLOGRAFT TECHNOLOGY

Cells. Signal. SPARC

istō<sup>®</sup>  
BIOLOGICS

# EVERYTHING YOU NEED FROM AN ELITE CBM... AND THEN SOME.

Ordinary Cellular Bone Matrices contain the three mechanisms of action necessary for bone healing; cells, signal, and scaffold. Influx™ SPARC, however, is anything but ordinary.

As a next generation CBM, SPARC undergoes processing to provide enhanced signal by harvesting and enriching supplemental growth factors. Pair that with advancements in allograft processing that incorporates additional DBM fibers for improved handling, maximized cell viability, and ease of use.

## EXTRAORDINARY.

### VIABLE & RELIABLE CELLS

#### + OSTEOGENIC

Osteogenic properties within SPARC contain high amounts of viable cells including mesenchymal stem cells (MSCs) and osteoprogenitor cells (osteoblasts) which are all vital for fueling new bone growth.

All tested lots of SPARC contained **greater than 100,000\*** viable cells per cc, with an average cell viability of ~143,000/cc.<sup>1</sup> Unlike other products on the market that quantify all cells, SPARC testing focuses solely on viable cells that are available to participate in healing.

\*(post cryopreservation and thaw)

### AMPLIFIED SIGNAL

#### + OSTEOINDUCTIVE

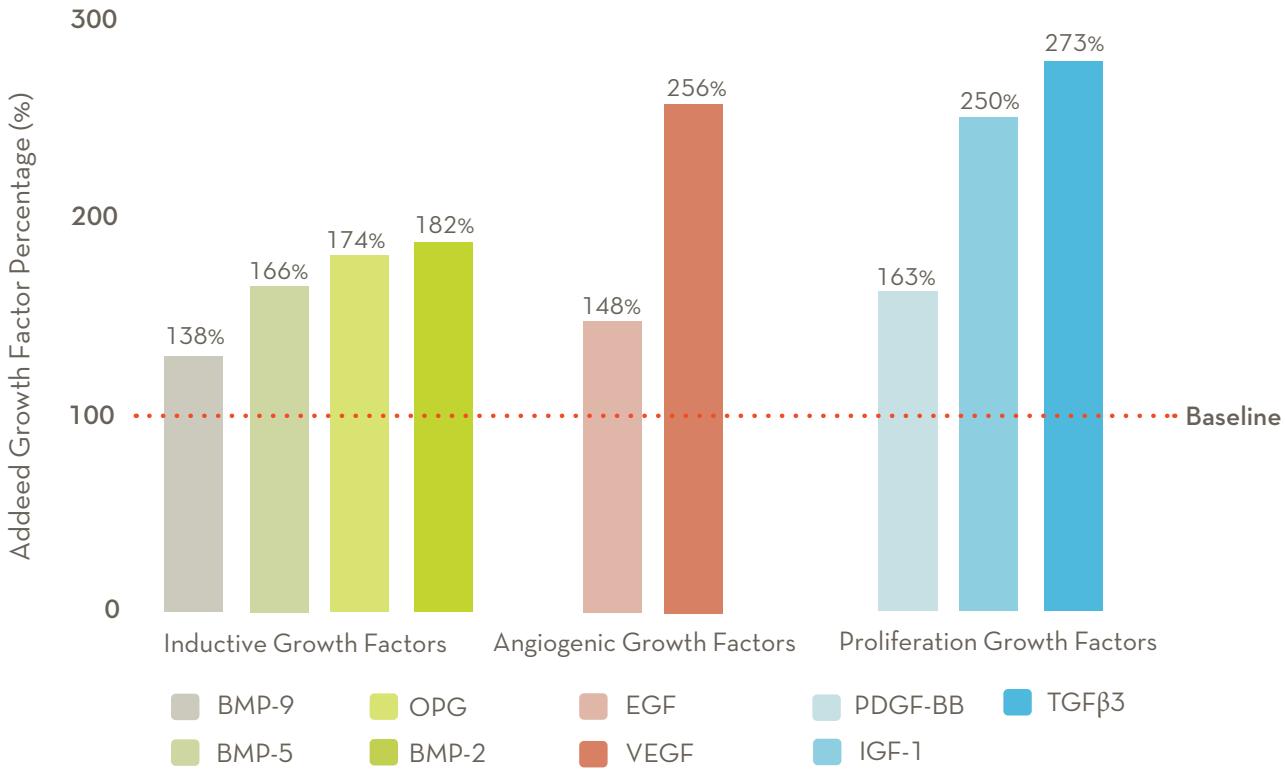
Created with your needs in mind, SPARC transcends to a new age of CBM that preserves native growth factors within the product. SPARC's enhanced osteoinductive potential can promote bone formation and fusion in ways traditional CBMs cannot.

In addition to the cortical DBM fibers found in other advanced CBMs, SPARC contains retained growth factors captured from bone lining cells which are typically discarded in washing away the bone stroma of the cancellous bone.



SPARC provides a concert of native growth factors including those that can promote induction, angiogenesis, and scaffold proliferation and integration. High levels of natural growth factors found in SPARC, including several Bone Morphogenetic Proteins (BMPs), VEGF, EGF and TGF $\beta$ 3, are some key contributors for the formation of bone.<sup>1</sup> In the processing phase, these growth factors are amplified above baseline and are available to contribute signaling for bone growth.

## SPARC PROVIDES ADDED GROWTH FACTORS<sup>1</sup>



## FIBER SCAFFOLD- RECRUIT AND RETAIN

### + OSTEOCONDUCTIVE

SPARC utilizes a fiber DBM that provides improved handing and increased osteoconductive scaffold over particulate DBM.<sup>2</sup> The collagen fiber structure provides a natural scaffold for cells to migrate and attach to.

## ADVANCED CRYOPROTECTANT

SPARC comes in a ready-to-use syringe, which aids in a rapid preparation process with a simple and safe thaw time of under 10-minutes. SPARC's DMSO-free cryoprotectant protects the cell membranes when frozen, assuring viable cells that can last up to 5-hours post thawing. There is no need for the decanting or washing the graft prior to implantation. Simply thaw and implant.

Bring the advantages of SPARC to your next case.

Why accept anything less?

# WHY CHOOSE SPARC?

Influx™ SPARC is a **fully pliable, cellular-enriched** allograft with a high concentration of growth factors for use in bone repair or reconstruction.

## 1. FIBERS

- + Cortical fibers have undergone a demineralization process
- + Contribute highly conductive, natural scaffold for new bone generation<sup>2</sup>

## 2. CELLULAR

- + Proprietary processing preserves osteoprogenitor cells while removing red and white blood cells
- + Bone-derived cells are contained in cancellous chips

## 3. GROWTH FACTORS

- + Cortical fiber DBMs provide high quality osteoinductive signal<sup>3</sup>
- + Additional growth factors are captured from bone lining cells and restored back into product

## 4. EASE OF USE

- + 10-minute thaw time in room temperature water bath
- + DMSO Free: Immediately implantable upon thawing in a ready-to-use syringe

For more information, schedule a SPARC case with your Isto sales representative, call customer service at 888.705.ISTO, or visit [istobio.co/sparc](http://istobio.co/sparc).

### OFFERED IN MULTIPLE SIZES

Product Size	Product Code
1cc	IFLX-CM-01
2cc	IFLX-CM-02
5cc	IFLX-CM-05
10cc	IFLX-CM-10
15cc	IFLX-CM-15

Processed and distributed by DCI Donor Services - Tissue Bank.

**Reference:** 1. Data on file, Advanced Biologics • 2 Martin, GJ Jr. et.al. (1999) New formulations of demineralized bone matrix as a more effective graft alternative in experimental posterolateral lumbar spine arthrodesis. Spine. 24(7):637-645 • 3. Urist, M.R. (2009). The Classic: A Morphogenetic Matrix for Differentiation of Bone Tissue. Clin Orthop Relat Res. 467:3068-3070.

**Disclaimer:** Influx™ SPARC is a line of human tissue products which meet FDA regulations governing tissue-based products under 21 CFR Part 1271. It is not combined with a drug, medical device, or carrier. The regulatory classification is analogous to that of allograft chips, blocks, or strips. Influx™ SPARC does not involve culturing cells, capital equipment, purchase, or intraoperative processing.



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AMS98181LBL Rev 6