

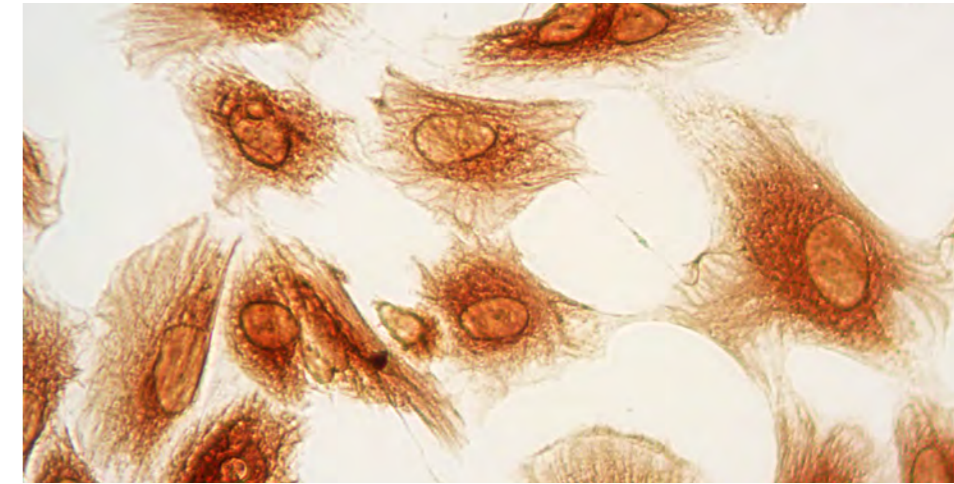
OUR MISSION
Providing Effective Regenerative
Solutions For A Sustainable Healthcare

REGENERATIVE TREATMENTS MADE EASY



Stromal Tissue (ST), a Regenerative Source

There is a worldwide consensus that the isolation and collection of regenerative Mesenchymal Stem Cells (MSC's) from differentiated body tissues is the most ethical option available today in Regenerative Medicine. Furthermore, among the tissues where MSC's are available for collection is clear that Stromal Tissue (ST) surrounding Adipose structures is the best source of readily available MSC's. This global preference is due to the following factors:



- ST is easy to access and harvest
- ST is available in adequate quantities in the body
- ST has a very large density of Regenerative Cells (10-100 fold more stem cells than other body tissues)

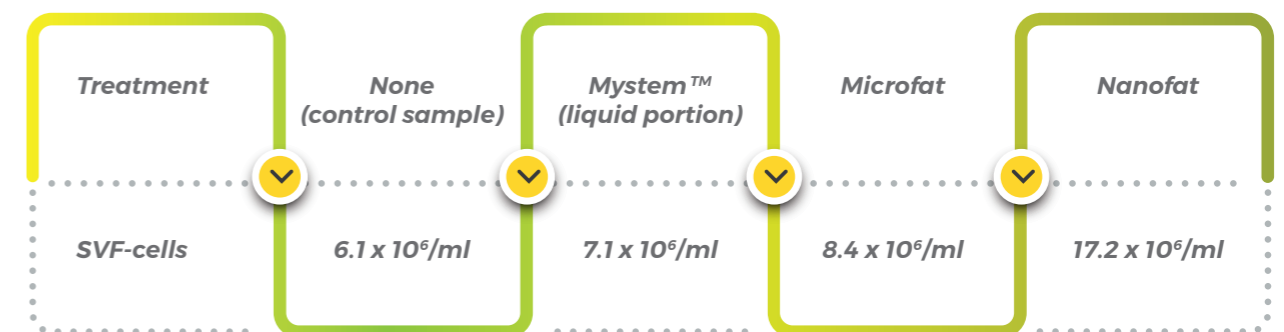
The myStem® device collects this regenerative fraction without extensive manipulation in a completely safe closed sterile system and in accordance with international regulations.

The regenerative fraction separation process is based on the intrinsic parameters of cells in a liquid fraction according to fluidic laws. After the simple one step separation process is completed the concentrated MSC suspension is ready for use.

Additionally the suspension can be further concentrated using a proprietary technology.

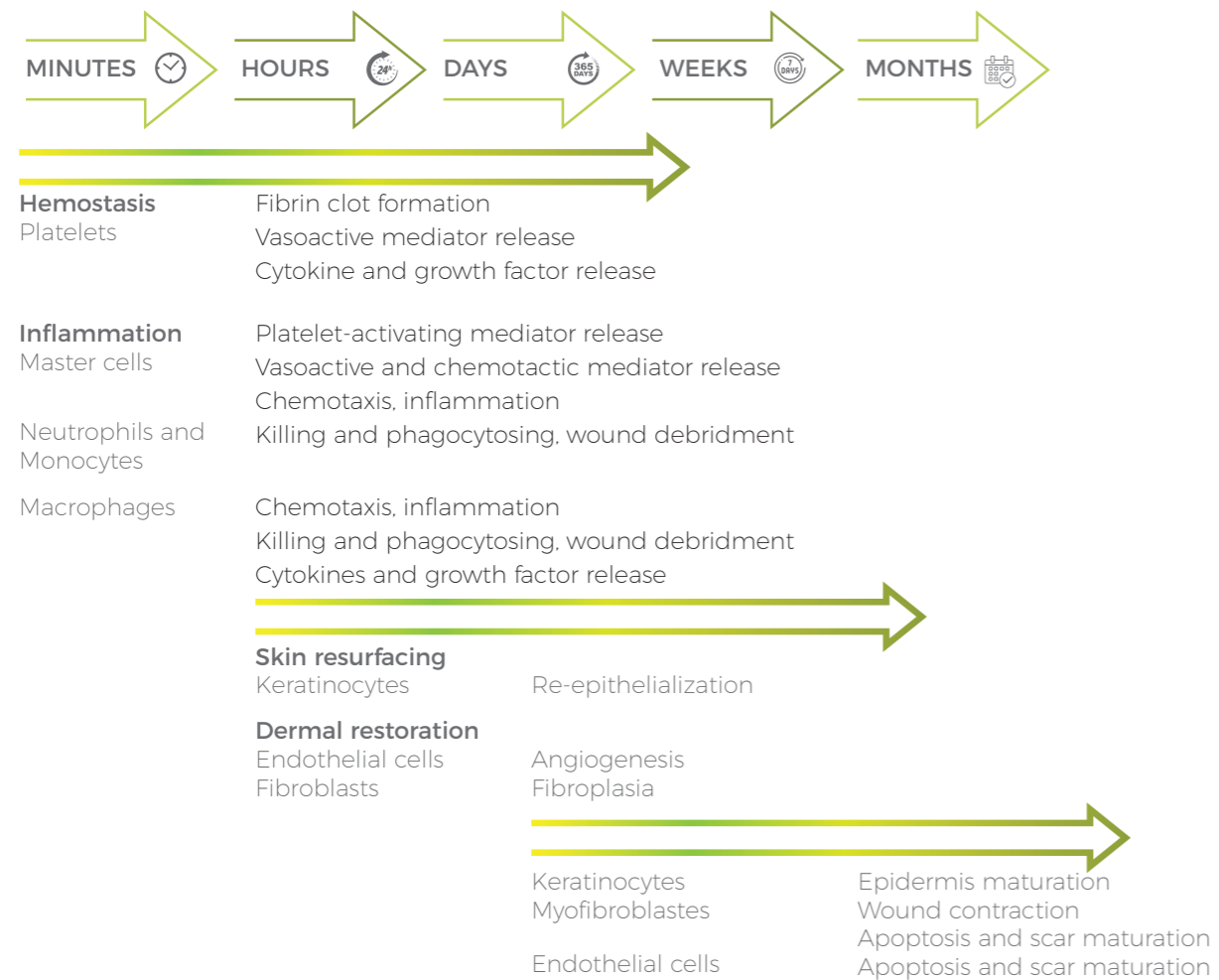
This innovative device is based on GMP-proof non-enzymatic tissue separation and cellular enrichment, enabling a rapid (10-15 minute) isolation of rom human lipoaspirates in a closed sterile system.

Results. SVF -Cells number has been assessed by direct cellular count on inverted-phase contact microscope in a Burkler glass chamber, with these results:



Right Cells at the Right Time”

CELL TYPES	CD MARKER PROFILE	%	%
Regenerative (progenitor-type) Cells			63.3%
Adipose-derived stem cell types	34+,45-,90+,105+,146-	34.6%	
Endothelial Types (vascular progenitors)	31+,146+	12.2%	
Vascular smooth muscle + pericyte	31-,146+	10.3%	
Hematopoietic stem cells	45+	6.2%	
Other Tissue Cells			22.5%
Leucocytes (white blood cells)			
TOTAL			100%



adMsc clinical protocols

TO TREAT:	ADMINISTRATION DETAILS	TIME FRAME	RESULTS
OA / Cartilage (1)	1 articular inj. (2x10 ⁶ cells)	4 months	Cartilage healing, Anti-inflammatory effect
Skin Antiaging (2)	1 intradermal inj. (1x10 ⁶ cells) + 2 successive injections at 2-week intervals	3 months	Skin, Wrinkles improvements
Hair Regrowth (3)	1 Sub-Q injection		Anagen Phase+Hair Cells Activation

1) Intra-articular delivery of adipose derived stromal cells attenuates osteoarthritis progression in an experimental rabbit model

Desando et al. Arthritis Research & Therapy 2013, 15:R22 www.arthritis-research.com/content/15/1/R22

2) Adipose-Derived Stem Cells and Their Secretory Factors as a promising Therapy for Skin Aging

Byung-Soon Park, Md, Phd, Kyoung Ae Jang, Md, Jong-Hyuk Sung,Phd, Jeong-Soo Park,Phd, Yong Hyun Kwon, Md, Kea Jeong Kim, Md, Phd, And Won-Serk Kim, Md, Phd

3) Hair growth stimulated by conditioned medium of adipose-derived stem cells is enhanced by hypoxia: evidence of increased growth factor secretion

Byung-Soon Park1), Won-Serk Kim2), Joon-Seok Choi3), Hyung-Ki Kim3), Jong-Hyun Won4), Fumio Ohku-bo5), Hirotaro Fukuoka6) 7)

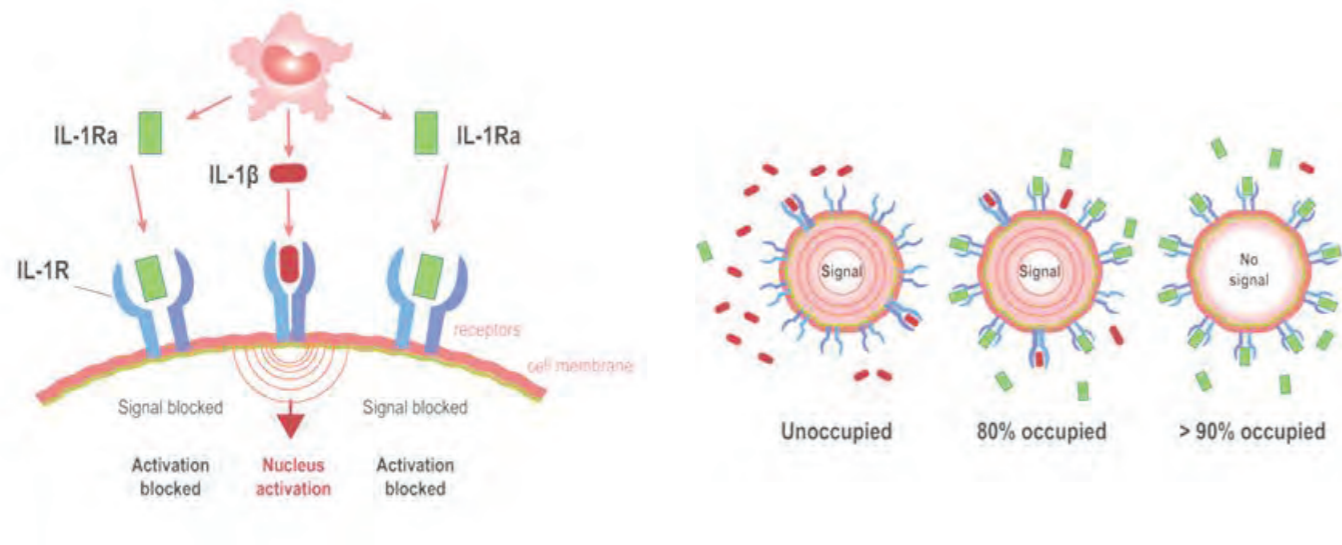
RegenX serum:

Right Cells at the Right Time™

THE REGENX SERUM, AS A NATURALLY OCCURRING REGULATOR, LEADS TO AN EFFECTIVE PAIN RELIEF AND LONG TERM JOINT PROTECTION.

In osteoarthritis, the body produces interleukin-1 (IL-1), a protein that contributes to the breakdown of cartilage. To slow down or stop this process, the biological adversary of IL-1, the interleukin-1 receptor antagonist (IL-1Ra), is required.

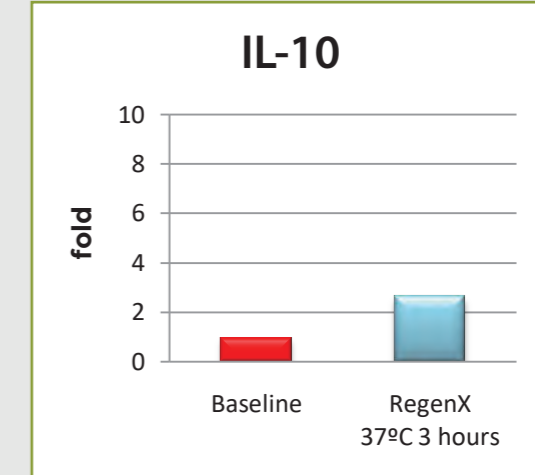
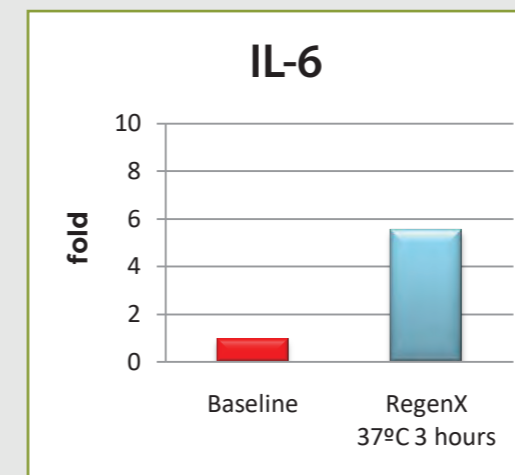
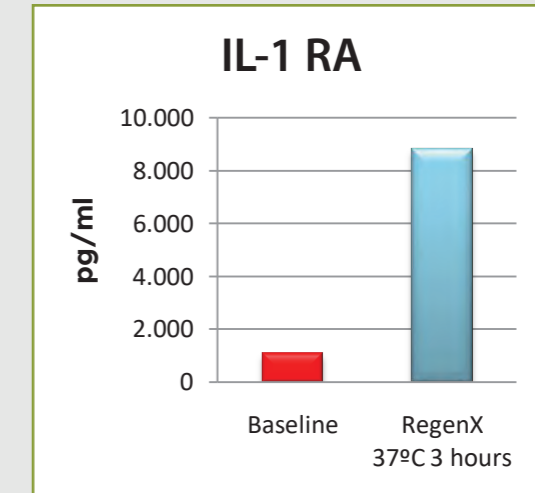
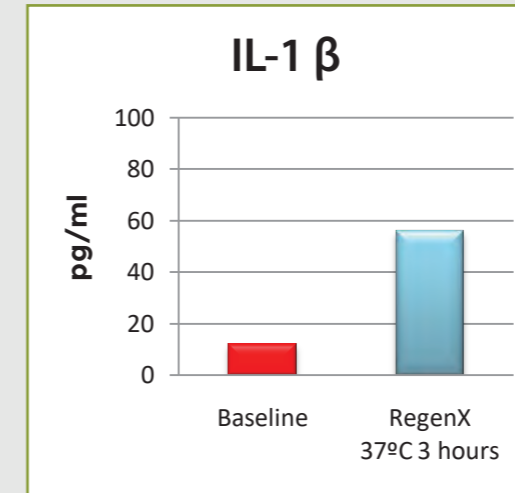
IL-1Ra neutralizes the effect of IL 1, and has anti-inflammatory, analgesic and cartilage-protective effects.



RegenX administers autologous conditioned serum (ACS) containing endogenous anti-inflammatory cytokines including IL-1Ra, IL-6, IL-10, and IL-13 and growth factors (IGF-1, PDGF and TGF-β, among others) in the liquid serum of the patient which can't be achieved by neither platelet rich plasma nor synthetics viscosupplements.

- ✓ Significant pain reduction
- ✓ Higher quality of life through functional improvement
- ✓ Long term efficiency
- ✓ May postpone or avoid surgery
- ✓ No additives and 100% natural
- ✓ Higher volume, more effect : 15cc an 20cc process chamber will result MORE EFFECTIVE RESULTS

Science In Action



Interleukin 1 (IL-1) is a highly potent proinflammatory mediator that is important in immune defense and in immune-mediated diseases. IL-1 stimulates the synthesis and activity of matrix metalloproteinases and other enzymes involved in cartilage destruction in rheumatoid arthritis and osteoarthritis. The effects of IL-1 are inhibited in vitro and in vivo by natural inhibitors such as IL-1 receptor antagonist.

Interleukin-1 receptor antagonist (IL-1RA) is a naturally occurring inflammatory inhibitor protein. Interleukin-1 receptor antagonist (IL-1RA) inhibits the activity of IL-1α and IL-1β by competitively blocking binding to their type I and type II receptors. IL-1 receptor antagonist belongs to the IL-1 family of cytokines and binds to IL-1 receptors inhibits the effect of IL-1 by blocking its interaction with cell surface receptors.

Interleukin 6 (IL-6) is identified as a soluble factor secreted by T cells, which is essential for the production of antibodies by B cells. The IL-6 signaling pathway has emerged as a key pathway involved in immune regulation in health and immune dysregulation in many diseases. IL-6 binds to both transmembrane and soluble forms of its receptor IL-6 R, promoting cellular proliferation, differentiation, oxidative stress, and immune regulation. IL-6 playing a pivotal role in the development of cartilage pathology via induction of matrix-degrading enzymes, also increases expression of anti-catabolic factors, suggesting a protective role.

Interleukin 10 (IL-10) is an anti-inflammatory cytokine mainly produced by macrophages and Th2 cells. The reported biological activities of IL-10, which maybe interrelated, include inhibition of macrophage-mediated cytokine synthesis, suppression of the delayed-type hyper-sensitivity response, and stimulation of the Th2 cell response which results in elevated antibody production. IL-10 functions by inhibiting pro-inflammatory cytokines made by macrophages and regulatory T cells including IFN-gamma, TNF-alpha, IL-2, and IL-3, IL-4, and GM-CSF. IL-10 is also known to suppress antigen presentation on antigen presenting cells, enhances cell survival, proliferation, and antibody production.

MyStem 10X PRP

MyStem 10X PRP is a medical product certified with "Class 2b" and produced as a third generation MyStem 10X PRP kit with high quality standards.

The curative effects of the platelet-rich plasma are caused by the growth factors which are released from the platelets and which can induce the recovery response.

The visibly rich plasma is provided to the applicator within approximately 10 minutes.

Due to its design, it ensures MyStem 10X PRP-PRF isolation with a closed system without using any needles and thus, the contamination risk is eliminated.

The same kit can extract Liquid PRF following a proprietary extraction protocol.

Liquid PRF can increase platelet and leukocyte yields by 10x compared to standard i-PRF, making it better for tissue regeneration.

Injectable-platelet-rich fibrin (i-PRF) induced significantly higher cell migration and increased expression of growth factors compared to standard platelet-rich plasma (PRP).

PRF, a second generation platelet concentrate, has several advantages over traditionally prepared PRP for accelerating soft tissue and hard tissue healing.

Liquid-PRF can enhance the bioactivity of collagen-based biomaterials and may act as a biomaterial-based growth factor delivery system.



MyStem 10X PRP system is a cost-effective system produced in order to use more the growth factors for the "therapeutic" uses. It is a reason for preference in the cases in which the single injector is not sufficient.

- High platelet density
- Full extraction of the buffy coat layer
- MyStem 10X PRP-PRF ready for use within 10 minutes
- Zero contamination
- Class 2b certificate
- **Innovative design compatible with every centrifuge**

