



**YOUR CELLS
FOR YOUR
HEALTH**



**LIPOGEMS ENHANCES
THE BODY NATURAL
CAPACITY TO HEAL
USING THE POWER
OF INNOVATIVE SCIENCE
AND BIOTECHNOLOGY**



**LIPOGEMS
INTERNATIONAL SPA
IS AN ITALIAN BASED
COMPANY WITH ITS HEAD
OFFICE IN MILAN WHICH
OPERATES GLOBALLY
IN THE BIOTECHNOLOGY
AND REGENERATIVE
MEDICINE SECTORS**

We produce and sell advanced medical devices
for the **processing of lipoaspirated adipose tissue for autologous use.**

Through our Ethical Code and the close collaboration with
the most important national and international research centers **we guarantee
a rigorous approach to patients and healthcare professionals.**



AMERICA

FDA USA 510K
FDA CANADA in process

EUROPE

CE MARKING

MIDDLE EAST

FDA SAUDI ARABIA
LOCAL REGISTRATIONS

OCEANIA

ARTG CERTIFICATE

**WE ARE OPERATING IN MANY COUNTRIES
AROUND THE WORLD THROUGH A GLOBAL
NETWORK OF AGENTS AND DISTRIBUTORS**

ADVANTAGES

OUR PRODUCTS
ARE USED WORLDWIDE
IN THE TREATMENT
OF VARIOUS PATHOLOGIES



Long lasting effect



Encourage
the natural tissue regeneration



Improve patients **quality of life**



Excellent **cost-benefit**
balance for the hospital

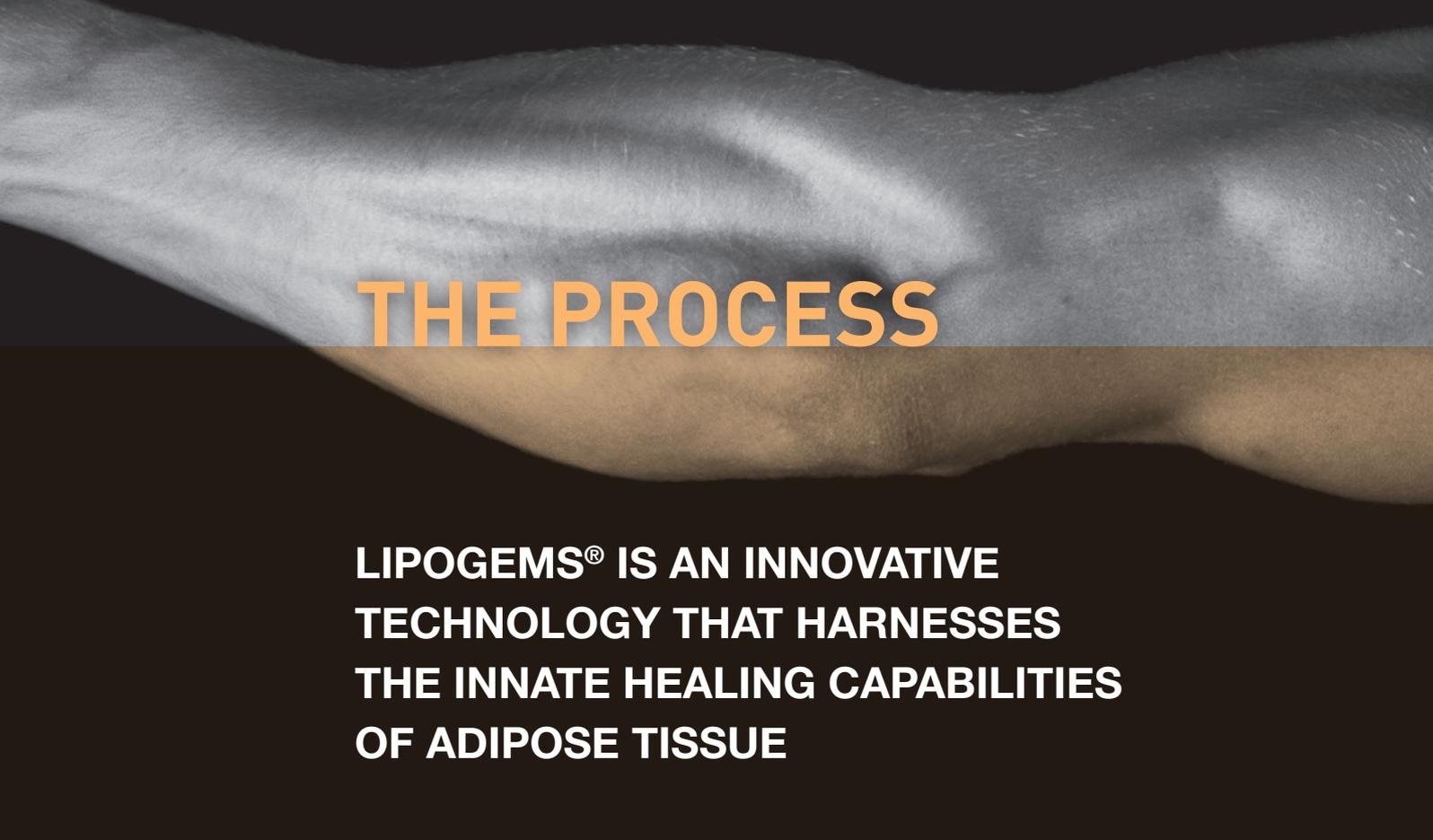
THE PRODUCT

THE LIPOGEMS® SYSTEM IS A STERILE SINGLE-USE MEDICAL DEVICE INTENDED FOR THE CLOSED-LOOP PROCESSING AND TRANSFERRING OF AUTOLOGOUS ADIPOSE TISSUE IN A SINGLE SURGICAL STEP

LIPOGEMS® is a **non-expanded and microfragmented adipose tissue graft** that is injected into damaged areas of the body in order to provide a cushion and structural support while promoting a healing environment.

LIPOGEMS® **preserve the natural healing properties of adipose tissue** by maintaining the fat's Vascular Stromal Niches.





THE PROCESS

**LIPOGEMS® IS AN INNOVATIVE
TECHNOLOGY THAT HARNESSSES
THE INNATE HEALING CAPABILITIES
OF ADIPOSE TISSUE**

The LIPOGEMS® process washes away inflammatory blood and oily residues, and progressively **microfragments adipose tissue clusters through minimal manipulation.**

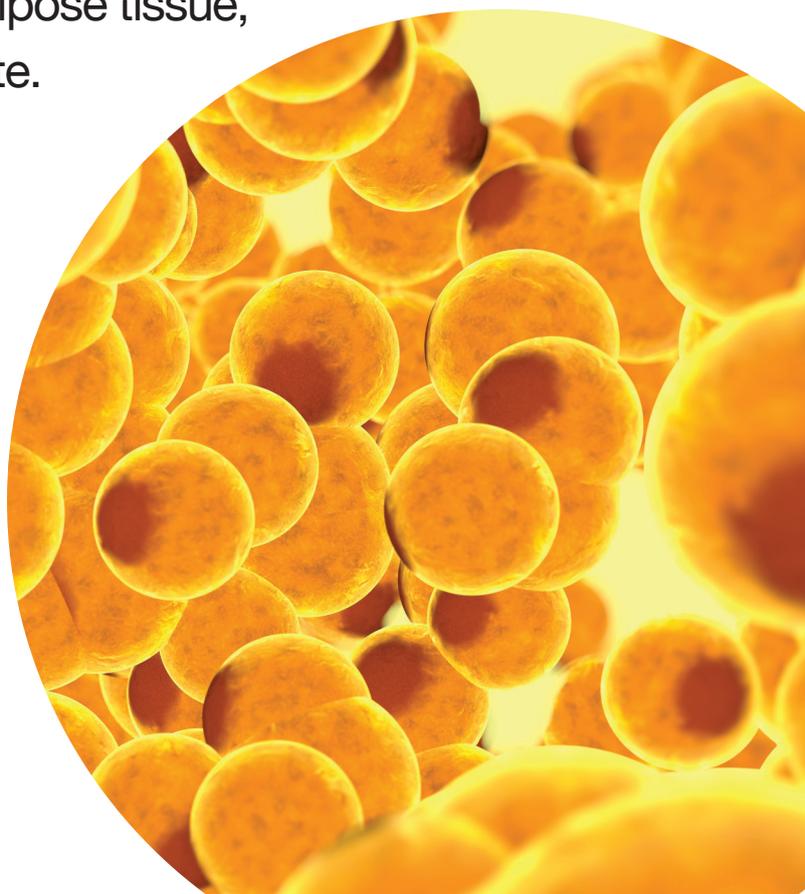
The unique process employs the LIPOGEMS® device - a **precisely engineered and patented, closed-loop system** that provides gentle, enzyme-free mechanical processing of the adipose tissue.

THE PROCEDURE

A SIMPLE AND EFFECTIVE PROPRIETARY TECHNOLOGY TO HARVEST, PROCESS AND DEPLOY LIPOASPIRATES IN A SINGLE SURGICAL STEP, RESULTING IN A MINIMALLY MANIPULATED TISSUE FOR APPLICATION IN REGENERATIVE MEDICINE

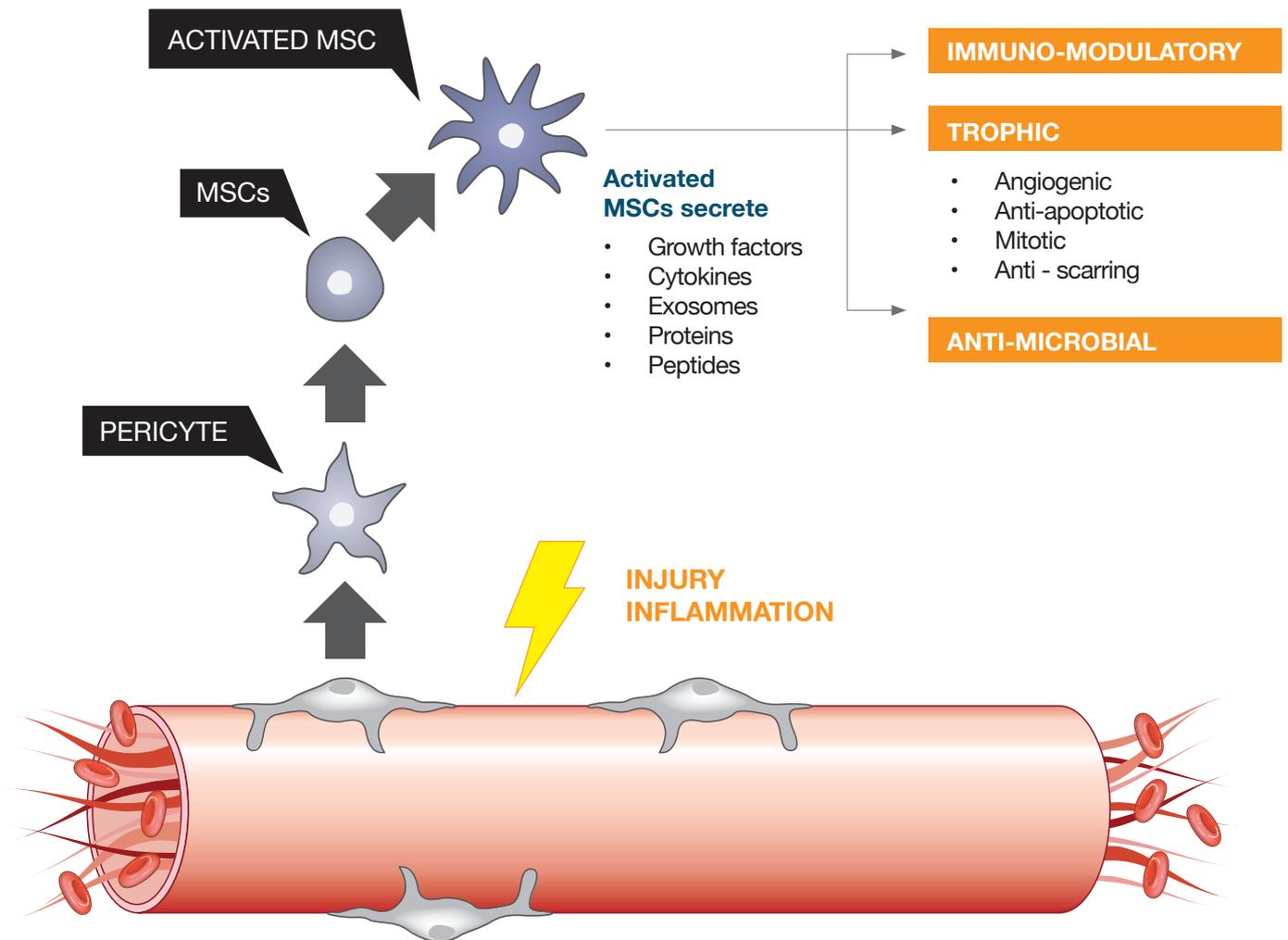
The LIPOGEMS® procedure involves 3 phases: minimal adipose tissue **harvesting**, novel, mechanical **processing** of the adipose tissue, and injection into the treatment site.

The LIPOGEMS® point-of-care procedure is **minimally invasive**, takes **less than 1 hour**, and can be performed in a **surgery center or an office setting**.



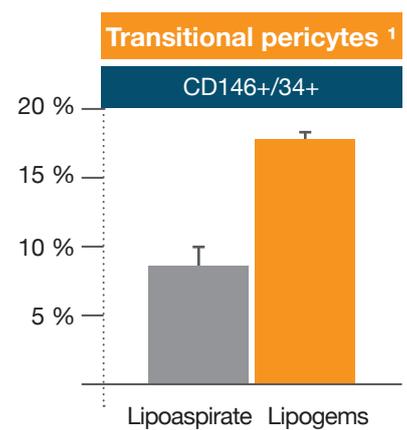
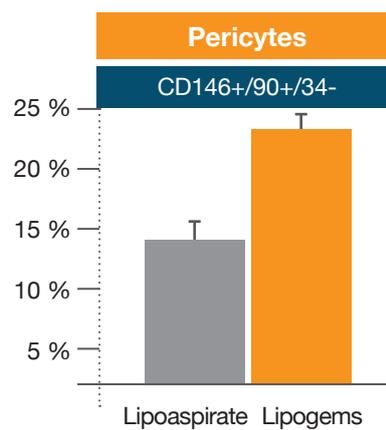
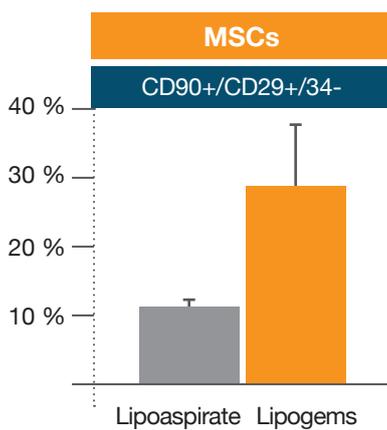
DAMAGE RESPONSE MECHANISM

LIPOGEMS® PRESERVES VIABLE ELEMENTS WITH PERICYTE IDENTITY THAT, AFTER AN INJURY, DETACH FROM THE CAPILLARIES AND GRADUALLY CONVERT INTO ACTIVATED MSCs



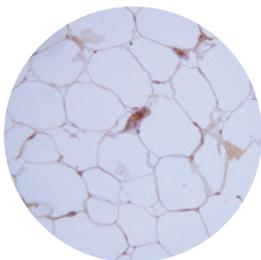
CHARACTERIZATION

LIPOGEMS® CONTAINS MORE MSCs, PERICYTES AND TRANSITIONAL PERICYTES THAN LIPOASPIRATE. DUE TO THE INTACT VASCULAR STROMAL NICHE LIPOGEMS® ACTS A NATURAL SCAFFOLD PRESERVING ACTIVATED MSCs

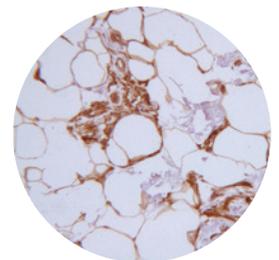


¹ Pericyte subset transitional between pericytes and supra-adventitial adipose stromal cells, and/or a set of endothelial (progenitor) cells

Lipoaspirate



LIPOGEMS® samples show a maintained vascular stroma consisting of slit-like capillaries containing vascular channels with evident lumina; on the contrary, conventionally treated fat tissue shows compressed and distorted microchannels.



APPLICATIONS

THE USE OF LIPOGEMS® ENCOURAGES THE NATURAL REGENERATION OF TISSUE AND CAN BE USED IN MANY PATHOLOGIES. THE MAIN APPLICATION FIELDS ARE



ORTHOPAEDICS



SPINE



PAIN MANAGEMENT



WOUND & VASCULAR



COLOPROCTOLOGY



**RE-CONSTRUCTIVE
PLASTIC SURGERY**



GYNECOLOGY

SCIENTIFIC COLLABORATIONS

LIPOGEMS® COOPERATES WITH INTERNATIONAL SCIENTISTS AND WELL-RENOWNED CLINICAL EXPERTS

Dr Giulio Alessandri

Università degli Studi di Milano
Milano, Italy

Prof Michela Bosetti

Università degli Studi
del Piemonte Orientale
Novara, Italy

Prof. Arnold I. Caplan

Case Western Reserve
University, Cleveland, Ohio,
United States of America

Prof. Fabrice Chrétien

Institut Pasteur,
Paris, France

Prof Massimo Dominici

Università degli Studi
di Modena e Reggio Emilia
Modena, Italy

Dr Laura de Girolamo

IRCCS
Istituto Ortopedico Galeazzi
Milan, Italy

Prof. Bruno Peault

Centre for Regenerative Medicine,
U.C.L.A Los Angeles, California,
United States of America
University of Edinburgh
Edinburgh, United Kingdom

Prof Augusto Pessina

Università degli Studi di Milano
Milano, Italy

Prof. Camillo Ricordi

Diabetes Research Institute,
University of Miami, Miami,
Florida, United States of America

Dr Pierre Rocheteau

Institut Pasteur
Paris, France

Prof. Carlo Tremolada

Istituto Image,
Milano, Italia

Prof. Carlo Ventura

National Institute of Biostructures
and Biosystems (NIBB),
Università di Bologna,
Bologna, Italy



Lipogems International S.p.A.

Viale Bianca Maria 24 - 20129 Milano, Italy

Tel. +39 02 3707 2408 / 9

info@lipogems.eu

www.lipogems.eu

