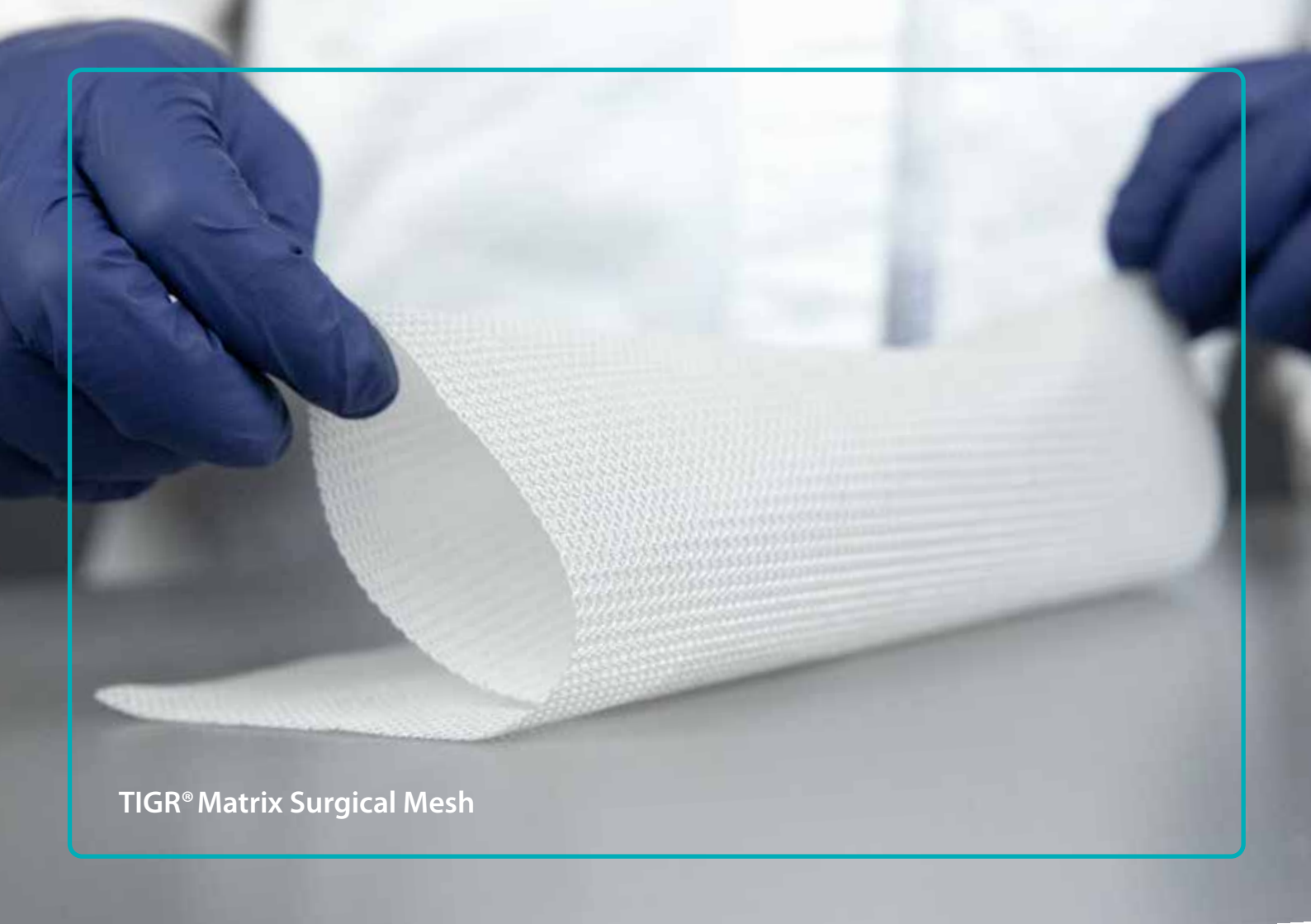
TIGR® matrix

SYNTHETIC RESORBABLE SCAFFOLD

Improving Patient Care

Novus Scientific®


TIGR® Matrix Surgical Mesh

STRONG WHEN YOU NEED IT
GONE WHEN YOU DON´T

TIGR®Matrix is the world's first long-term resorbable, 100 % synthetic surgical mesh. Its unique technology consists of dual-stage degradation and full resorption.

TIGR® matrix


Long-term
Resorbable
100%
Synthetic
Untwisted
Multifilament
OUR SOLUTION
TIGR® Matrix

The Design

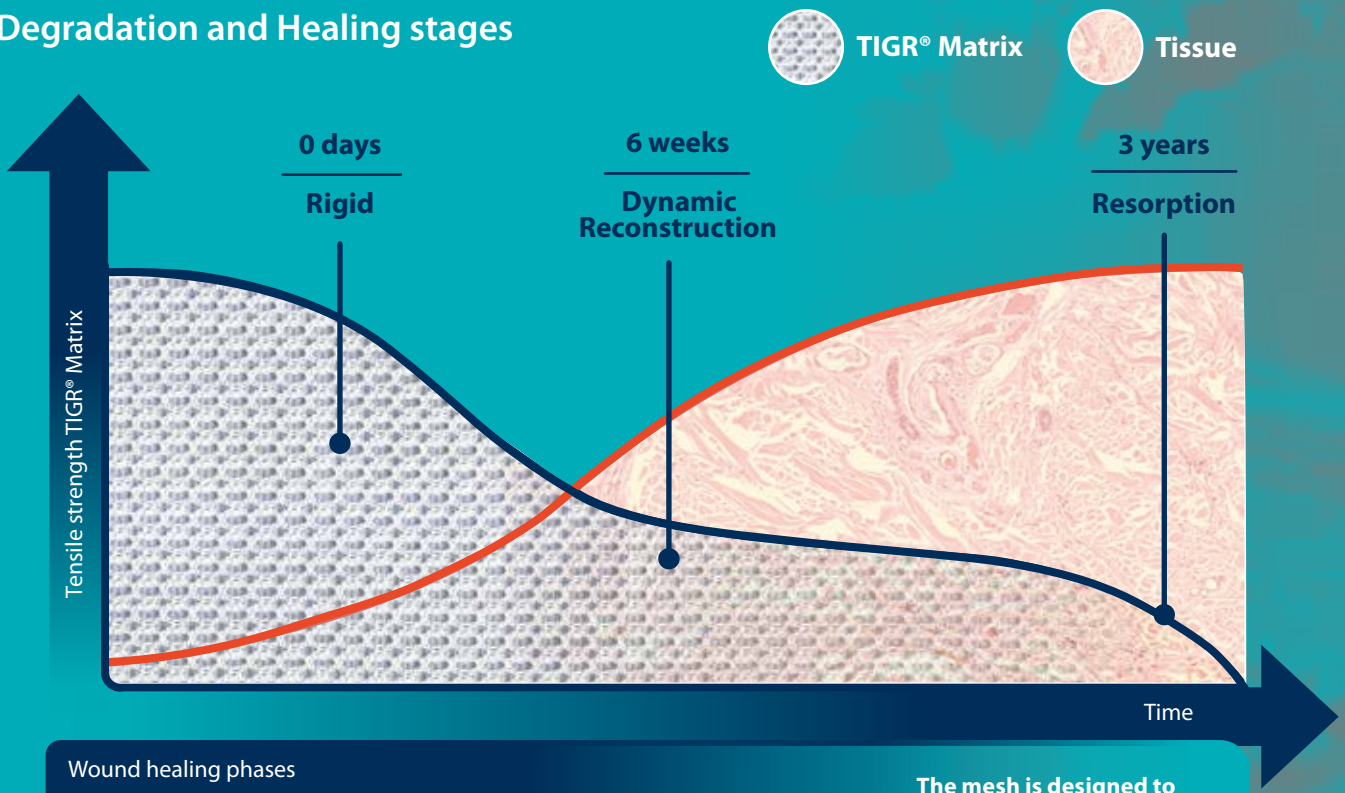
TIGR® Matrix Surgical Mesh is a resorbable surgical implant. It is made from two different synthetic polymer fibers that are knitted together to form a matrix.

TIGR Matrix is characterized by long-term resorption and a dual stage degradation design that follows the natural wound healing and remodeling stages. Designed to allow the body to withstand the stresses after the matrix has been absorbed. The new connective tissue can then offer a long-term support.

The result is a surgical mesh that is easy to use for a variety of reconstructive surgery applications where a balance between mechanical support and degradation time is needed.

TIGR Matrix is made from materials that have been in clinical use since the 1970's and the product is supported by a growing body of peer-reviewed clinical evidence.

Degradation and Healing stages



Wound healing phases

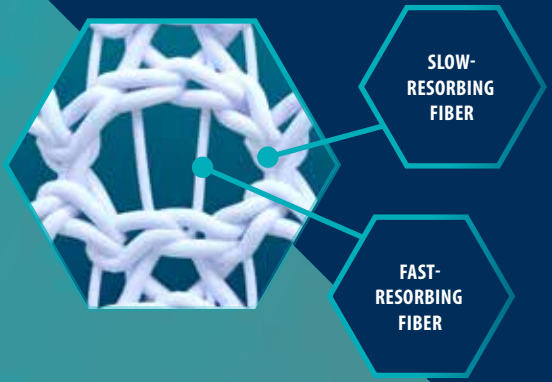
INFLAMMATION

PROLIFERATION

REMODELLING

ANGIOGENESIS

The mesh is designed to adapt to the different wound-healing phases, resulting in a natural transfer of dynamic loads from the mesh to the tissue over time.



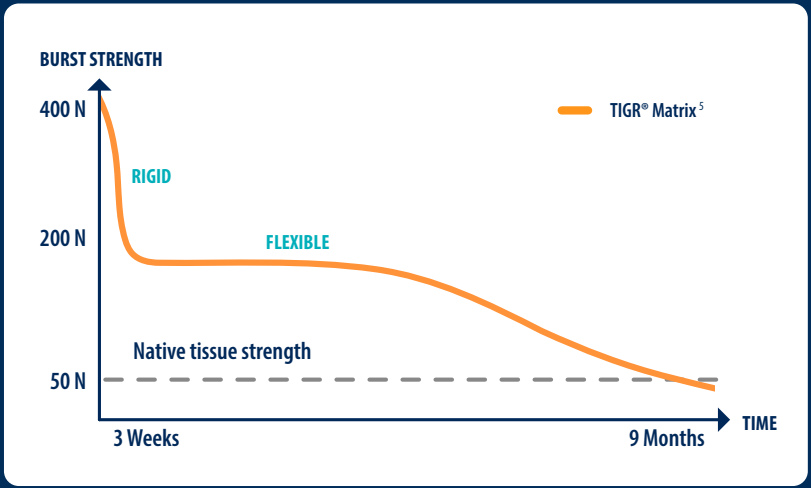
THE MECHANISM

TIGR® Matrix

Dual-stage resorption

Dual-stage mechanics are achieved by arranging two fibers with different degradation times in an interlocking knitting pattern.

- Strength and stability in the mesh is high during initial wound-healing.[5]
- Gradual increase of flexibility and transfer of load to the tissue stimulates regeneration of well-structured collagen.[1]



Why Multifilament

TIGR Matrix is a multifilament mesh making it more pliable and flexible with a greater tensile strength when compared with monofilament meshes, which have a less complex fabric structure.

These multifilament properties are transferred to TIGR Matrix giving it superior handling characteristics enabling it to adapt willingly to underlying structures.

Non-twisted Multifilament and integration

Untwisted allow integration of tissue not only through the open pores in the mesh but also in-between each fiber of the matrix.

Porosity in warp-knitted fabrics

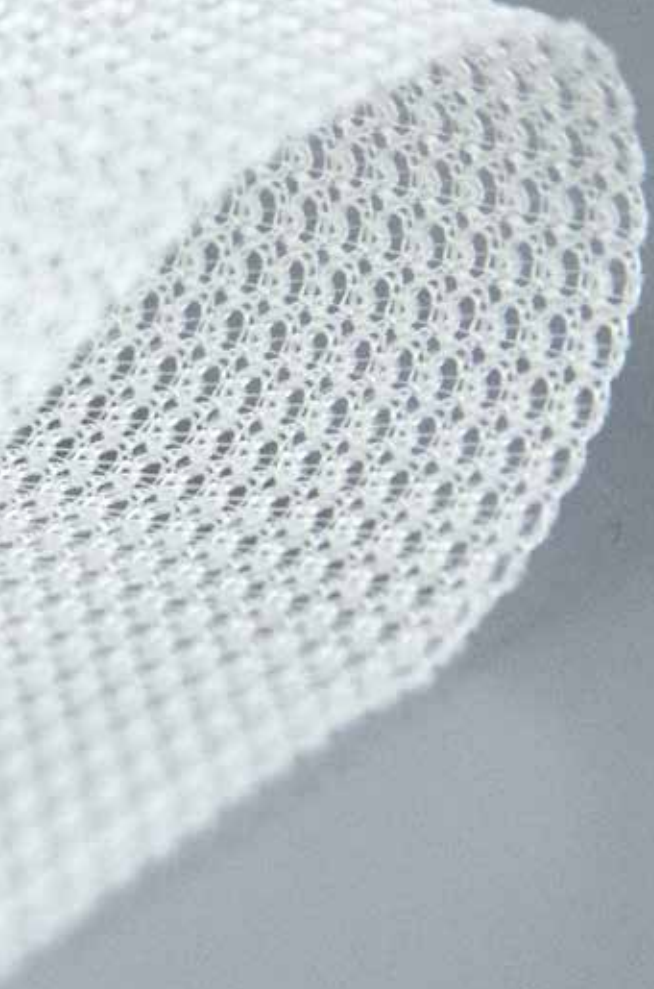
TIGR Matrix is made of warp-knitted multifilament fibers giving it its unique structure. The small space between fibers will rapidly absorb blood due to capillary forces and later widen to give place to new tissue and blood vessels.

WARP-KNITTED

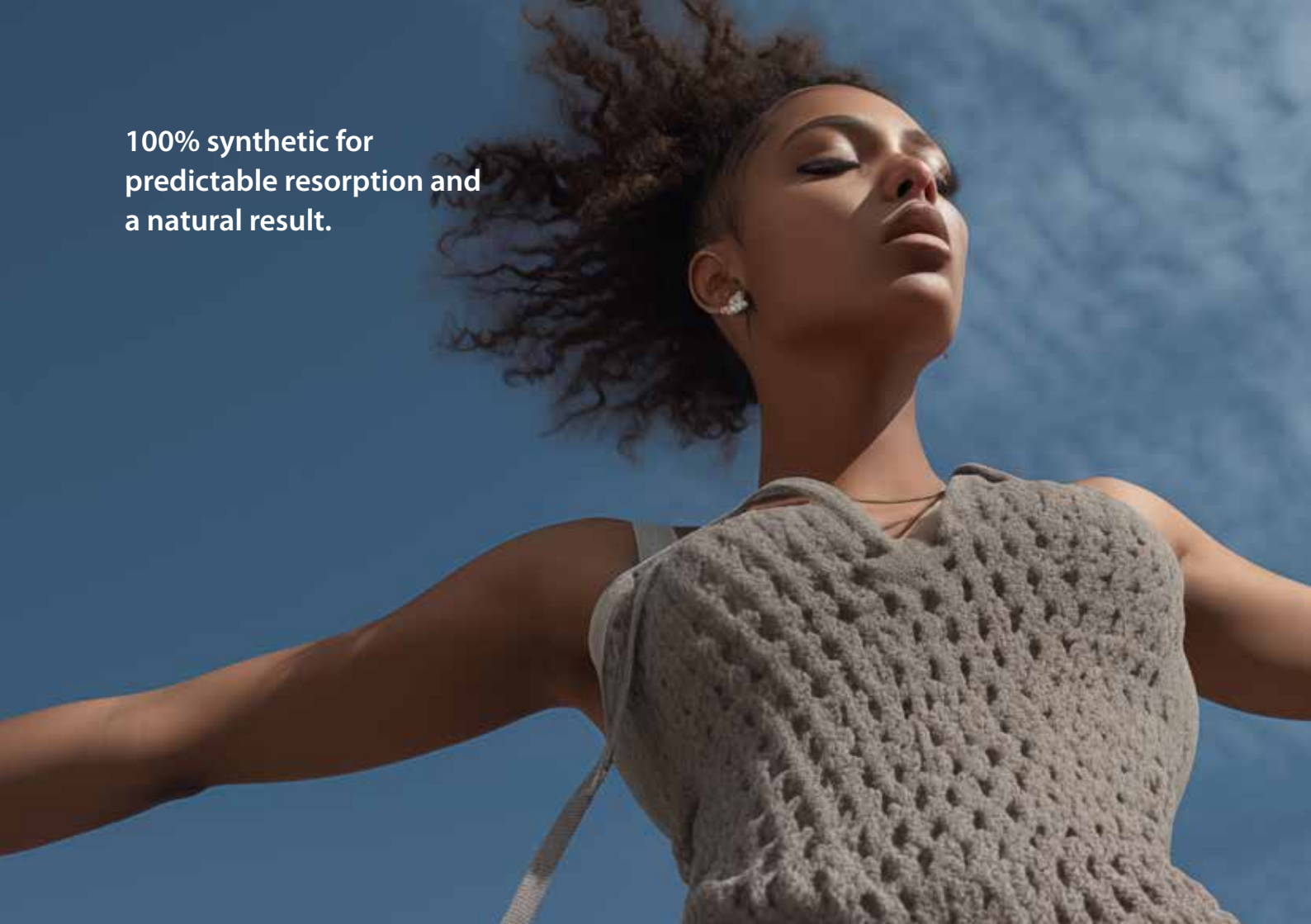
TIGR® Matrix

Photo: ANDREAS LINDAHL, MD & PhD Caroviva clinic, Sweden

- Strong up to 9 months and gone in 3 years.[1,5]
- Copolymers of lactide, glycolide and trimethylene carbonate. Same type of polymers that have been in clinical use since the 1970s.[1]
- Macro-porosity, >1 mm^2, allows for good tissue integration.[1,2]
- Ready to use directly out of the package, without rinsing.
- Warp-knitted multifilament fibers make it easy to handle, pliable and easy to cut.[4]
- A viable alternative to acellular dermal matrices, at a lower cost.[2,3,4]



WHAT IS
TIGR® Matrix


100% synthetic for
predictable resorption and
a natural result.

TIGR® Matrix

TIGR Matrix is a versatile alternative to other biosynthetic or biological materials.
It comes with long-term follow-up data and a low complication rate documented in peer reviewed literature.

TIGR® Matrix superior handling characteristics

- Knitting process allows mesh to be cut to optimal size without fraying.
- Slight memory allowing fixation under gentle stretch preventing buckling of the mesh.
- With mesh taut, no buckling when anterior fascia is closed in TAR and other sub-lay techniques.

EVIDENCE WITH
TIGR® Matrix

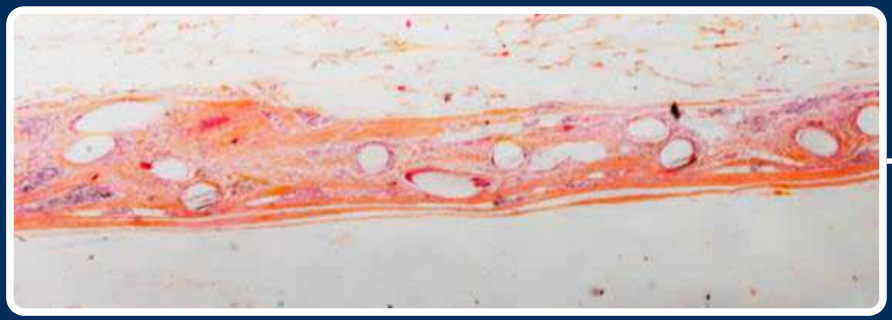
Ref.
1. Hjort et al, Hernia, 16:191–197, 2012.
2. Becker et al, Aesth Plast Surg, 37:914–921, 2013.
3. Ramshaw et al, Surg Technol Int, 26:135-142, 2015.
4. Schrenk, Breast Cancer Manag, 10.2217, 2016.
5. Data on file, in vitro resorption.

Tissue integration and collagen deposition

A pre-clinical study showed that collagen deposition significantly increased in the TIGR® Matrix group in comparison to the control group.[1]

36 Months post implantation

TIGR® Matrix revealed a newly formed abdominal wall of approximately 6 mm.[1]



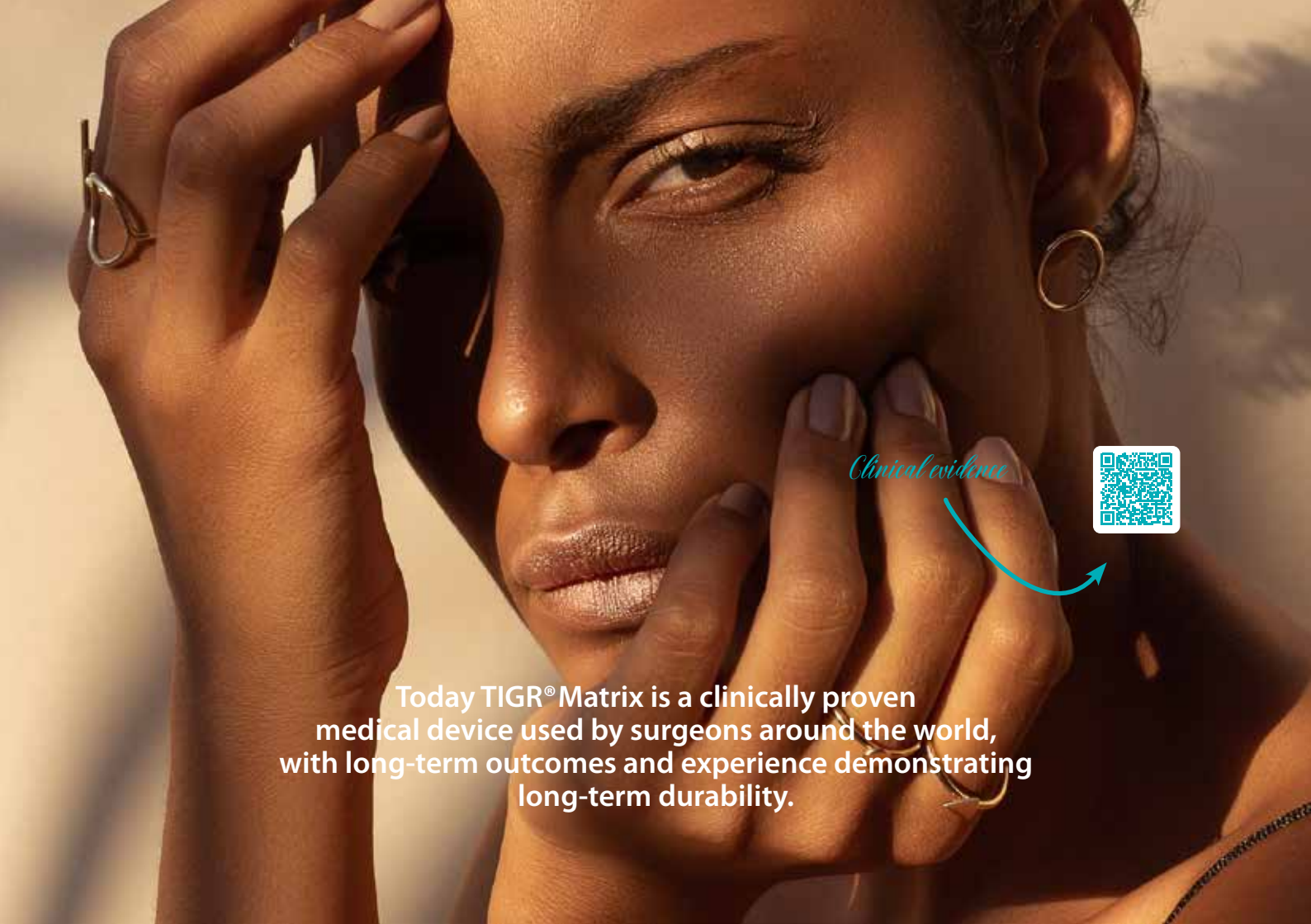
Polypropylene control mesh showed a wall thickness of approximately 1.3 mm.[1]

TIGR® matrix

- 100% synthetic
- Non animal based
- Long-term resorbable
- Biocompatible
- Dual stage degradation
- Strong
- Multifilament
- Warp-knitted
- Untwisted fibers
- Macro-porosity design
- No preparation needed, no rinsing
- Pliable and easy to cut
- Cost effective

REASONS TO USE

TIGR® Matrix



Today TIGR® Matrix is a clinically proven medical device used by surgeons around the world, with long-term outcomes and experience demonstrating long-term durability.

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TO ORDER

SIZE	REF. NO.
10 x 15 cm	NSTM1015
15 x 20 cm	NSTM1520
20 x 30 cm	NSTM2030

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