



BIODESIGN[®]
ADVANCED TISSUE REPAIR



COOK[®]
MEDICAL

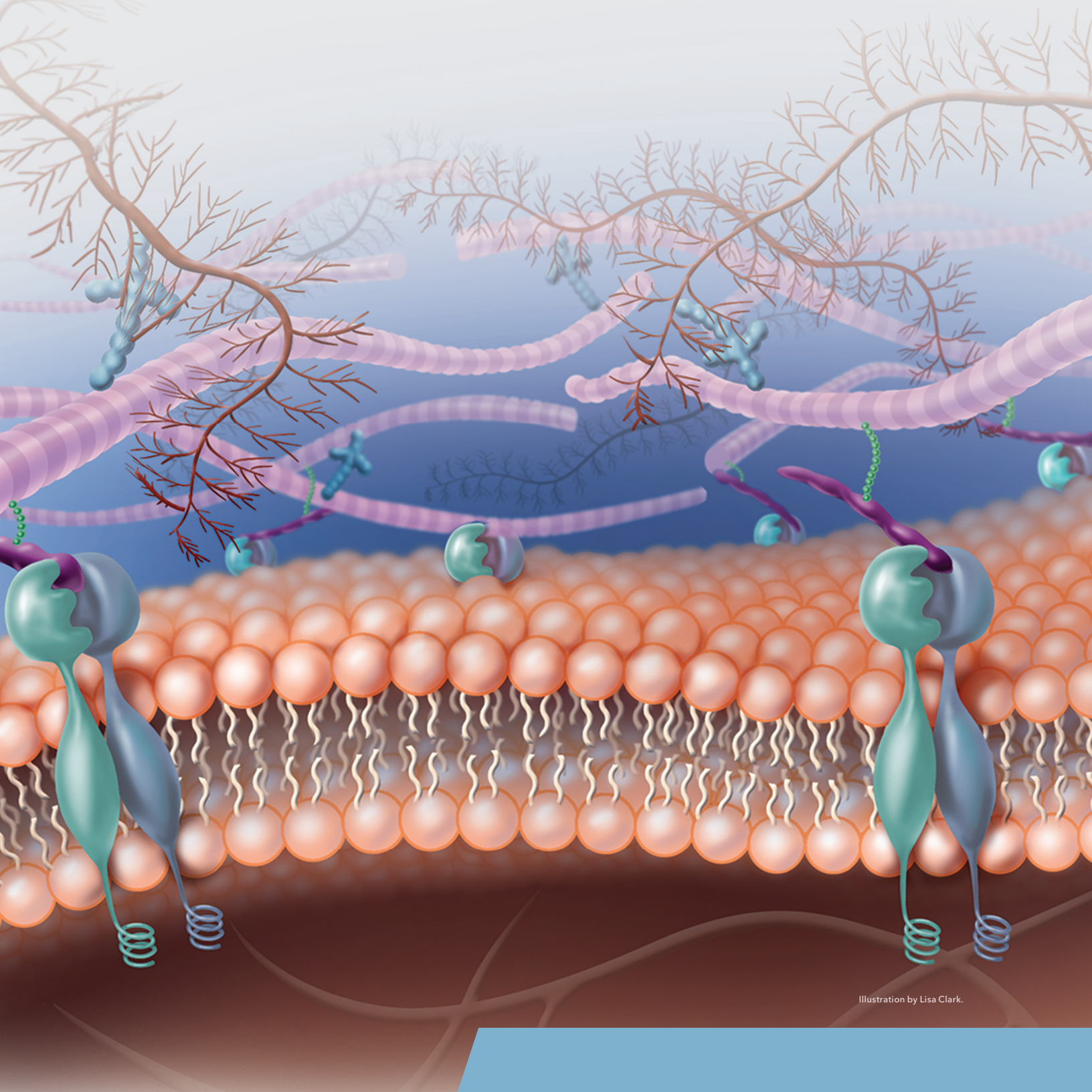


Illustration by Lisa Clark.

What is Biodesign?

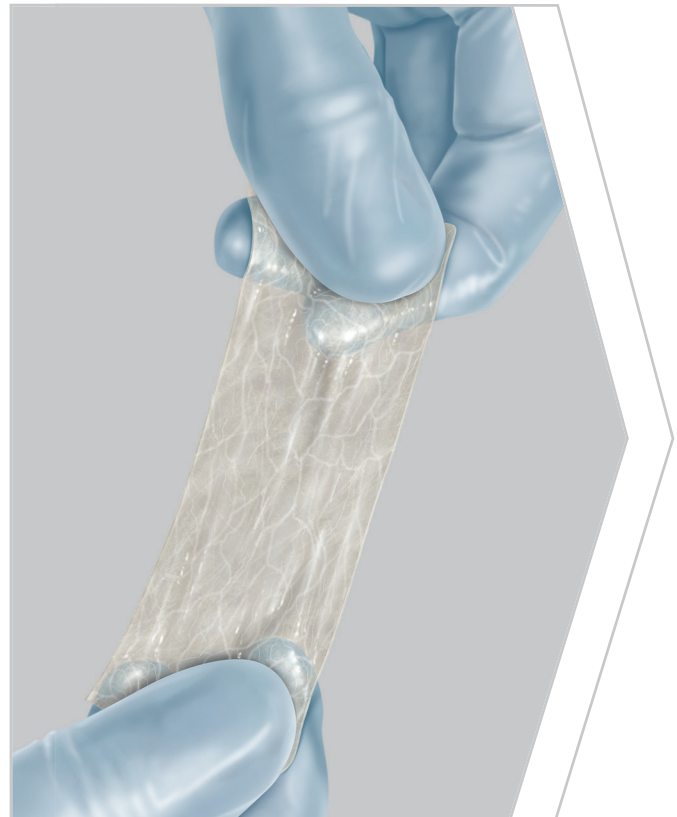
Biodesign is a platform technology behind numerous tissue-repair products that span multiple medical specialties.

Biodesign is natural extracellular matrix (ECM) derived from **porcine small intestinal submucosa (SIS)**.

The ECM is a complex latticework of proteins and structural molecules that helps guide the growth of cells.¹

Cook's proprietary processing methodology decellularizes the SIS material while preserving natural matrix molecules such as **collagen, proteoglycans, and glycosaminoglycans**.²

The result is a scaffold that, when implanted, provides a location for host cells to infiltrate and remodel into vascularized tissue.³

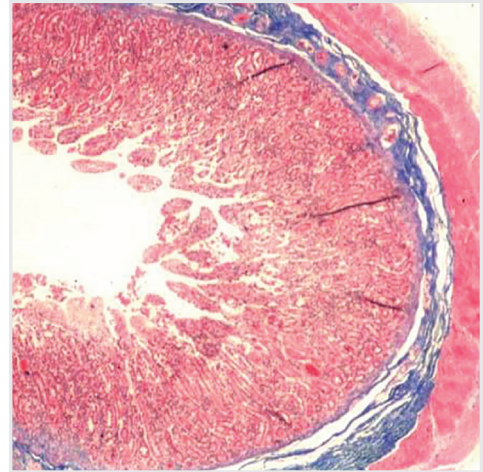
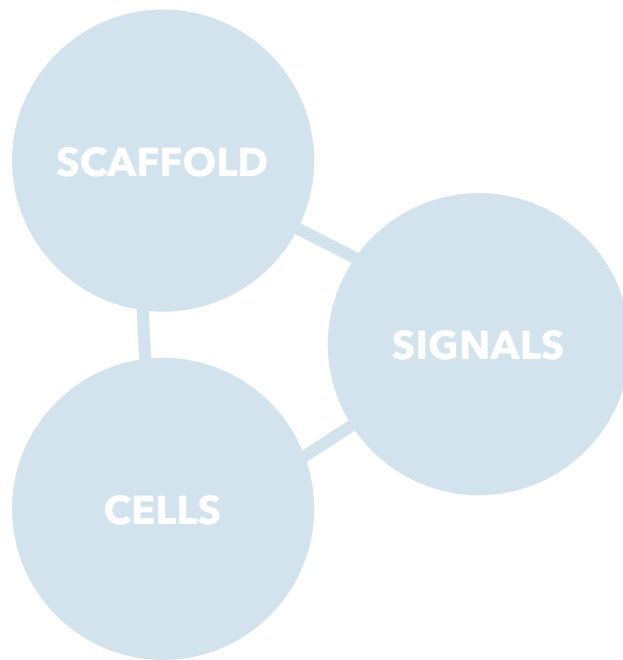


How does Biodesign work?

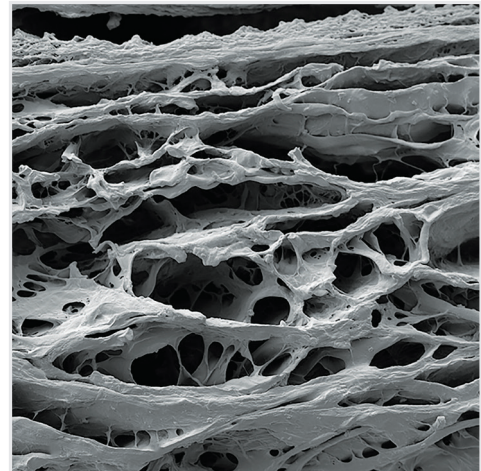
There are three essential components to healing: a scaffold, signals, and cells.

Biodesign's open lattice structure provides a scaffold for tissue ingrowth.³

The body's signaling mechanisms help patient cells infiltrate the scaffold and completely remodel into natural host tissue.



Porcine small intestine, submucosa in blue.

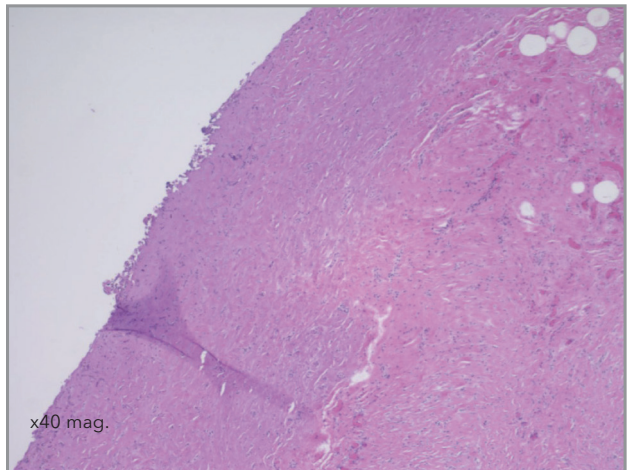


Extracellular matrix structure of lyophilized porcine small intestinal submucosa

Microscopic view of the remodeling process²



Biodesign graft prior to implantation



8 months after implantation

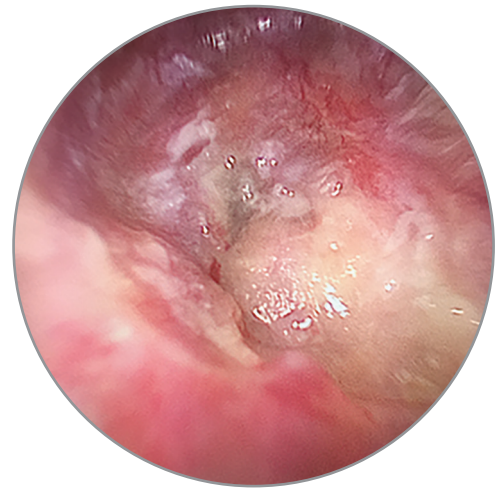
The Biodesign graft (left) allows for the substantial growth of organized tissue, as seen in this biopsy sample, taken eight months after implantation (right). The above images are of the Biodesign Plastic Surgery Matrix implanted in breast tissue.⁴

What is the result?

The result is a durable repair consisting of vascularized tissue.



Placement of a Biodesign graft



15 days post-op



40 days post-op



60 days post-op

Images of endoscopic tympanoplasty provided by Dott. Giuseppe Panetti, December 2014, Ascalesi Hospital-ASL Napoli.

A proven technology.

With more than 1,400 total published articles, Biodesign is one of the most well-studied graft technologies on the market.*

1438

Published articles*

529

Describing use
in **humans***

7

> 5 year
follow-up*

27

Published
OHNS studies*

22

Randomized,
controlled trials*

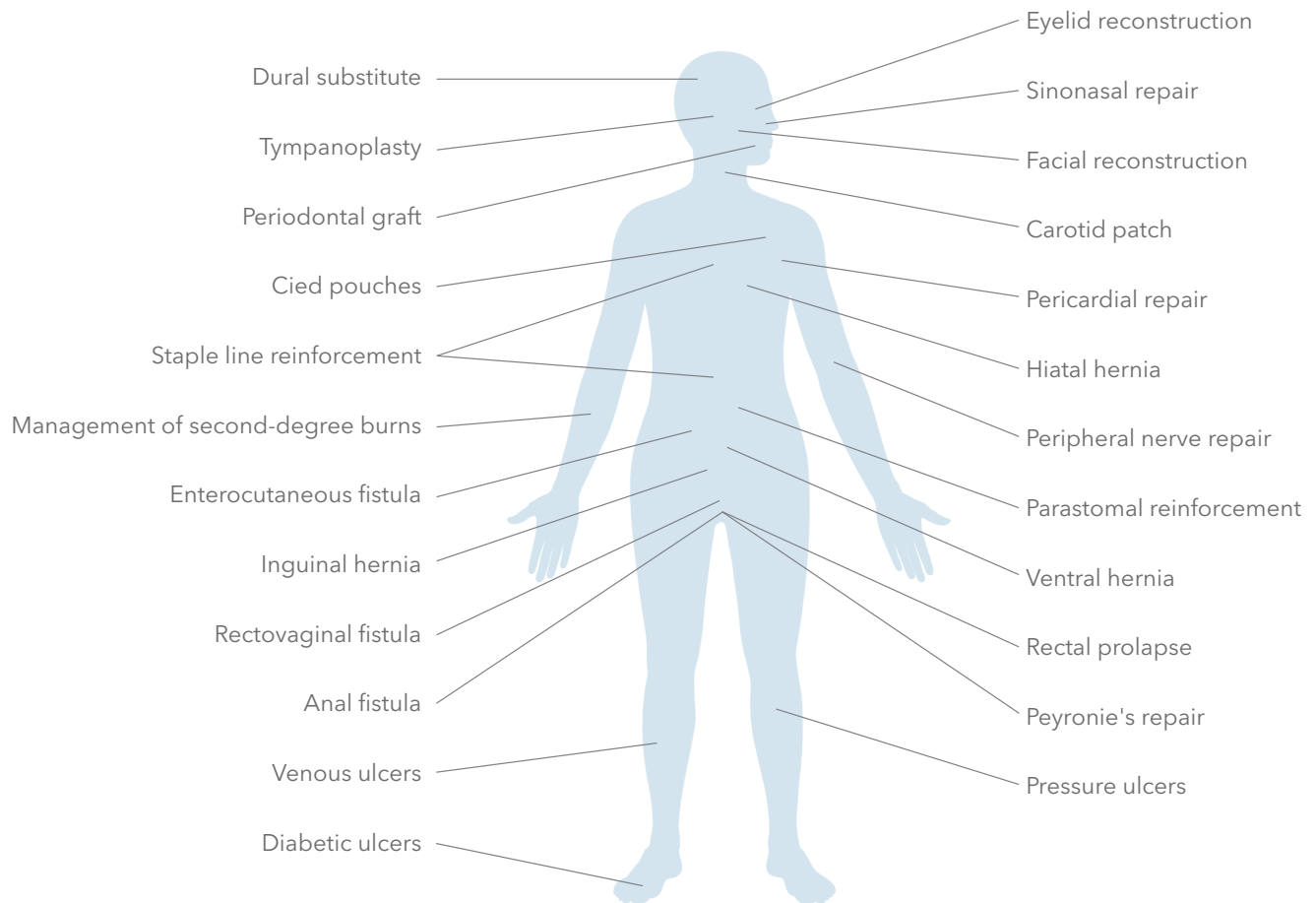
*As of 1 May 2018.

Data and resources

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Published history of therapeutic uses

The technology behind Biodesign has been used in numerous applications throughout the body.

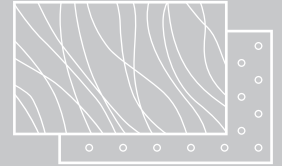




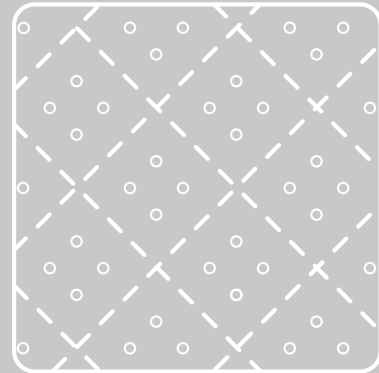
DURAL GRAFT



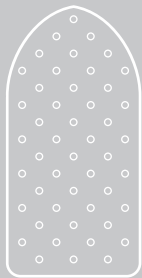
FISTULA PLUG



4-LAYER TISSUE GRAFT



HERNIA GRAFT



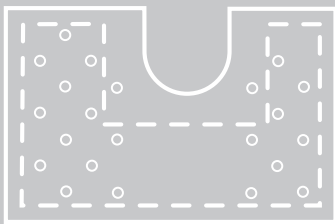
INGUINAL
HERNIA GRAFT



OTOLOGIC REPAIR
GRAFT



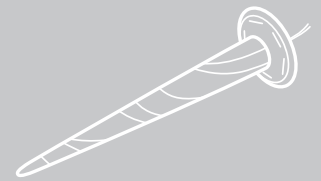
SINONASAL REPAIR
GRAFT



HIATAL HERNIA GRAFT



STAPLE LINE
REINFORCEMENT



FISTULA PLUG



OTOLOGIC REPAIR
GRAFT

Products for

SOFT TISSUE REPAIR

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3. Data on file. Cook Biotech Internal Report #D00199545.
4. Data on file. Cook Biotech Internal Report #D00199430.

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