

CollPlant Overview



CollPlant
Biotechnologies

Pioneering
Regenerative
Medicine

February 2020

Safe Harbor Statement

Certain statements in this presentation constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act and are usually identified by the use of words such as "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "seeks," "should," "will," and variations of such words or similar expressions. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Securities Exchange Act and are making this statement for purposes of complying with those safe harbor provisions. These forward-looking statements reflect our current views about our plans, intentions, expectations, strategies and prospects, which are based on the information currently available to us and on assumptions we have made. Although we believe that our plans, intentions, expectations, strategies and prospects as reflected in or suggested by those forward-looking statements are reasonable, we can give no assurance that the plans, intentions, expectations or strategies will be attained or achieved. Furthermore, actual results may differ materially from those described in the forward-looking statements and will be affected by a variety of risks and factors that are beyond our control. Risks and uncertainties for our company include, but are not limited to: the Company's history of significant losses, its ability to continue as a going concern, and its need to raise additional capital and its inability to obtain additional capital on acceptable terms, or at all; the Company's expectations regarding the timing and cost of commencing clinical trials with respect to tissues and organs which are based on its rhCollagen based BioInk, dermal fillers for aesthetics, breast implants, VergenixSTR, and VergenixFG; the Company's ability to obtain favorable pre-clinical and clinical trial results; regulatory action with respect to rhCollagen based BioInk, dermal fillers for aesthetics, breast implants, VergenixSTR, and VergenixFG including but not limited to acceptance of an application for marketing authorization, review and approval of such application, and, if approved, the scope of the approved indication and labeling; commercial success and market acceptance of the Company's rhCollagen based BioInk, dermal fillers for aesthetics, breast implants, VergenixSTR, and VergenixFG; the Company's ability to establish sales and marketing capabilities or enter into agreements with third parties and its reliance on third party distributors and resellers; the Company's ability to establish and maintain strategic partnerships and other corporate collaborations; the Company's reliance on third parties to conduct some or all aspects of its product manufacturing; the scope of protection the Company is able to establish and maintain for intellectual property rights and the Company's ability to operate its business without infringing the intellectual property rights of others; the overall global economic environment; the impact of competition and new technologies; general market, political, and economic conditions in the countries in which the Company operates; projected

capital expenditures and liquidity; changes in the Company's strategy; and litigation and regulatory proceedings. Many of these factors that will determine actual results are beyond our ability to control or predict. For a discussion of the factors that may cause our actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, see the "Risk Factors" section of included in our most recently filed Annual Report on Form 20-F. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

The statements made in this presentation speak only as of the date stated herein, and subsequent events and developments may cause our expectations and beliefs to change. Unless otherwise required by applicable securities laws, we do not intend, nor do we undertake any obligation, to update or revise any forward-looking statements contained in this presentation to reflect subsequent information, events, results or circumstances or otherwise. While we may elect to update these forward-looking statements publicly at some point in the future, we specifically disclaim any obligation to do so, whether as a result of new information, future events or otherwise, except as required by law.

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Overview

- A regenerative and aesthetic medicine company developing innovative technologies and products for tissue regeneration and organ manufacturing
- Proprietary technology platform that enables mass production of recombinant human collagen (rhCollagen)
- rhCollagen-based products aimed at 3D Bioprinting of tissues and organs, and medical aesthetics markets
- Strategic agreement with United Therapeutics (NASDAQ: UTHR) for 3D bioprinting of lung transplants and other life saving organs



Experienced management team



Prof. Oded Shoseyov
Co-Founder & Chief Scientist

Pauli Clean Tech
CBD Tech.
Fulcrum-SPD
Melodea
Hebrew University



Yehiel Tal
CEO

Regentis Biomaterials
ProChon Biotech
Kulicke & Soffa Industries



Eran Rotem
Deputy CEO & CFO

Tefron, CFO (NYSE, TASE)
Healthcare Tech., CFO
(NASDAQ) & Gamida
E&Y



Nadav Orr, PhD
VP R&D

Ethicon Biosurgery,
Johnson & Johnson



Ilana Belzer, PhD
COO

BioHarvest
Procognia Ltd.
Omrrix Biopharmaceuticals
Interpharm

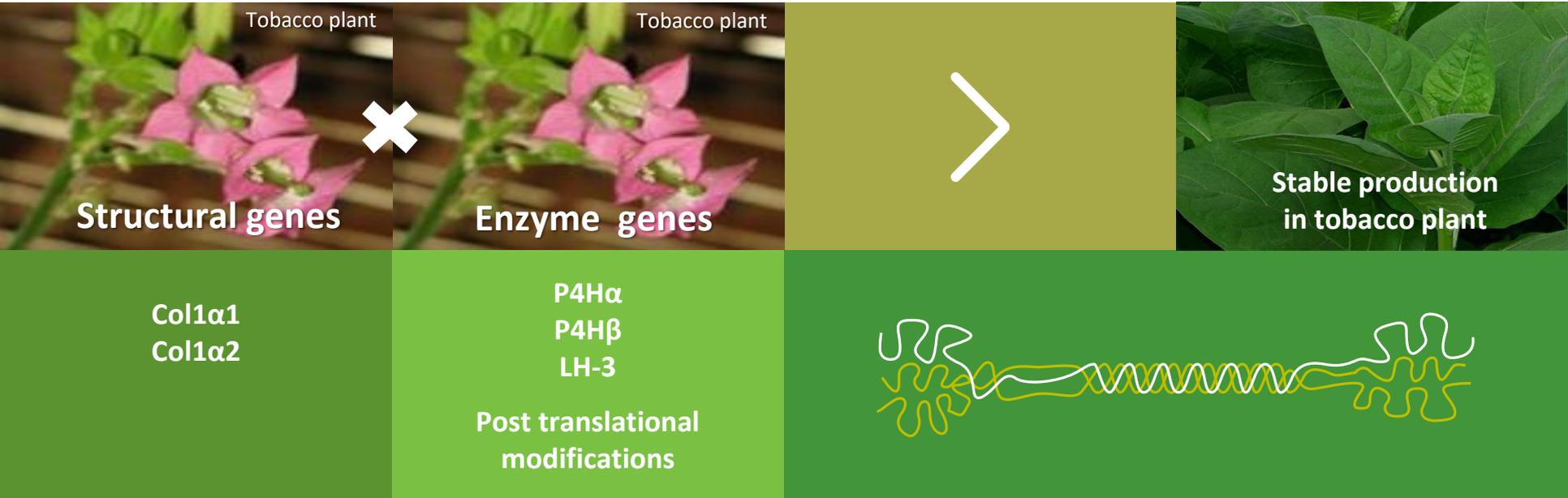


Philippe Bensimon, PharmD
VP RA/QA/CA

Maquet Getinge
3M Medical

CollPlant's technology

Co-expression of 5 human genes in tobacco plants for the production of functional type I human recombinant Collagen



Plant-derived rhCollagen

The ideal building block for regenerative medicine

Clear advantages over animal-derived collagen



Better bio-functionality

- Accelerates human cell proliferation
- Faster tissue healing



Superior homogeneity

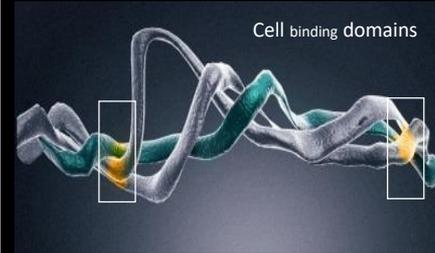
- Controlled physical/rheological properties
- Reproducibility
- Transparency (not visible)



Improved safety and greater purity

- Non-immunogenic
- Non-allergenic
- No pathogens
- No foreign body response

Animal-derived

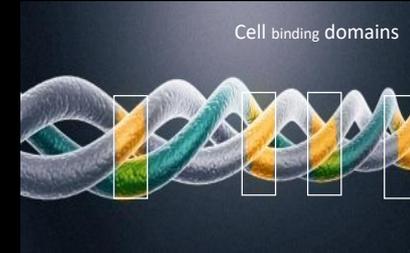


Few cell binding domains due to partially denatured crosslinked collagen

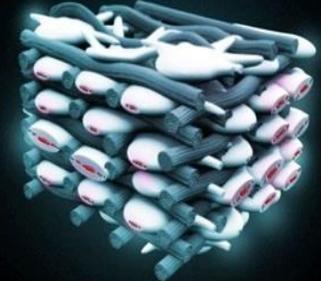


Slow cell proliferation and slow tissue repair Foreign body reactions (e.g. granuloma)

Plant-derived



Many cell binding domains enabled by perfect triple helix enhance cellular attachment



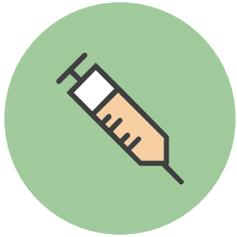
Fast cell proliferation and fast tissue repair

Medical aesthetics

Regenerative
dermal filler



Dermal fillers market overview



~2,091,476 HA procedures in 2017 in the US¹

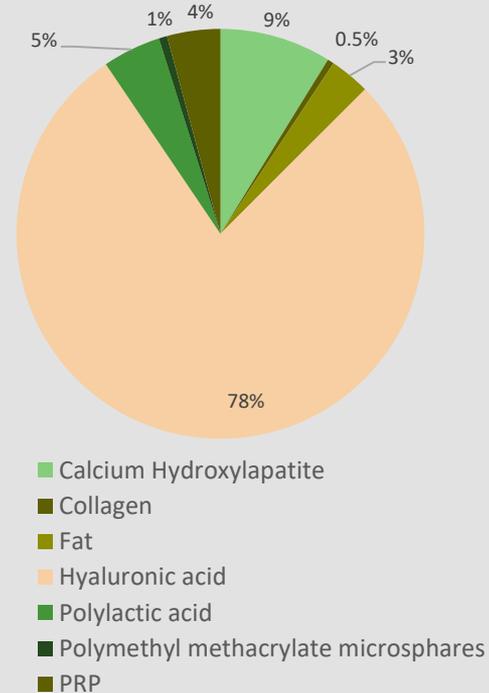


Global dermal filler market, 2017²



Cost per syringe: \$100-\$250/unit³

2017 Procedure breakdown, U.S (by material)*



¹<https://www.plasticsurgery.org/documents/News/Statistics/2017/plastic-surgery-statistics-report-2017.pdf>

²<https://www.gminsights.com/industry-analysis/dermal-filler-market>

³<https://www.medicalsparx.com/juvederm-hydrate>, <https://www.medicalsparx.com/buy-juvederm-ultra-plus-xc>

Combining the advantages of Collagen and Hyaluronic Acid

HA

Physical properties

- Highly viscous:
Provides mechanical stability after injection
- Convenient injection:
37-32G needle, 10-15N expression force
- High lifting capacity
- Transparent

The
best of
both
worlds

rhCollagen

Biological properties

- Promotes cell adhesion and proliferation
- Promotes tissue regeneration
- Non allergic/non immunogenic

Photocurable rhCollagen-HA regenerative dermal filler



Easy injection
(30G needle)



Sculpturing before
curing



Optimized post
curing stiffness



Good tissue
retention

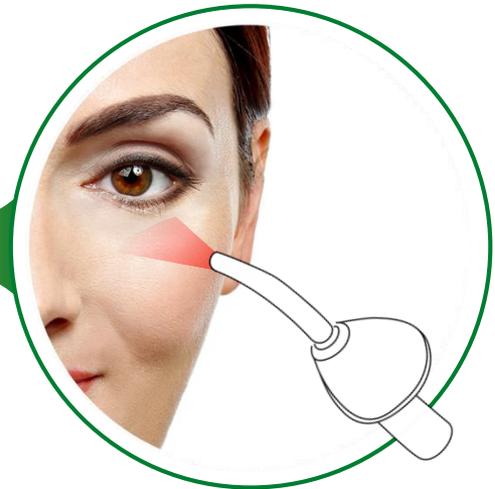
Injection



Sculpturing



Photocuring in-situ



3D Bioprinting

tissues & organs



Organ transplantations are expensive and inefficient

Average transplant costs and wait times in USA:



HEART (2,725/YEAR)

\$1.4 million
191 days



KIDNEY (16,804/YEAR)

\$415,000
679 days



LUNGS (1,397/YEAR)

\$1.2 million
185 days



PANCREAS (136/YEAR)

\$347,000
281 days



LIVER (6,158/YEAR)

\$813,000
239 days



CORNEA (50,099/YEAR)

\$30,200
50 days

The advent of 3D bioprinting is expected to enable **unlimited, economical access to organs around the world**

<http://us.milliman.com/uploadedFiles/insight/2017/2017-Transplant-Report.pdf>

U.S. Department of Health & Human Services

<https://optn.transplant.hrsa.gov/data/>

Lewis JK, Bischof JC, Braslavsky I, Brockbank K, Fahy G, Fuller B, Rabin Y, Tocchio A, Woods E, Wowk B, Acker J and Giwa S; The Grand Challenges of Organ Banking: Proceedings from the first global summit on complex tissue cryopreservation, Cryobiology, Volume 72, April 2016, Pages 169-182.

~30,000

US transplants per year

115,000

US waiting list

900,000

US deaths per year from organ impairment



3D bioprinting major market segments



Organs

- Lungs
- Liver
- Kidney
- Heart



Endocrine glands

- Ovary
- Pancreas
- Thyroid



Tissues

- Skin
- Cornea
- Bones
- Cartilage
- Breast
- Heart valves



Scaffolds

- Spine fusion
- Non-union fractures
- Craniomaxillofacial
- Nerve conduits
- Tendons & ligaments

ORGANS

900,000 patients¹

OVARY

700,000 patients²

BREAST

500,000 patients³

SPINE FUSION

400,000 patients⁴

¹In the U.S, total number- Lewis JK, Bischof JC, Braslavsky I, Brockbank K, Fahy G, Fuller B, Rabin Y, Tocchio A, Woods E, Wowk B, Acker J and Giwa S; The Grand Challenges of Organ Banking: Proceedings from the first global summit on complex tissue cryopreservation, Cryobiology, Volume 72, April 2016, Pages 169-182.

²<https://www.womenshealth.gov/menopause/early-or-premature-menopause> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3634232/>

³<https://www.plasticsurgery.org/documents/News/Statistics/2018/plastic-surgery-statistics-full-report-2018.pdf>- Breast augmentation, lift and reconstruction

⁴in the U.S, annually, <https://www.ors.org/Transactions/57/0642.pdf>



BioInk for 3D printing of tissues and organs

CollPlant's rhCollagen-based BioInk offers ideal characteristics for 3D bioprinting



Optimal rheology at room temperature - Viscosity and gelation kinetics



Biocompatible – supports viability of different cell types

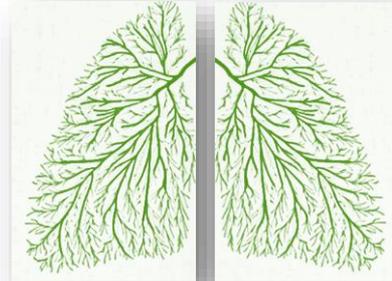


Non immunogenic, excellent safety profile in clinical use (rhCollagen)



Tunable physical and mechanical properties

Collaboration agreement with United Therapeutics (Oct. 2018)

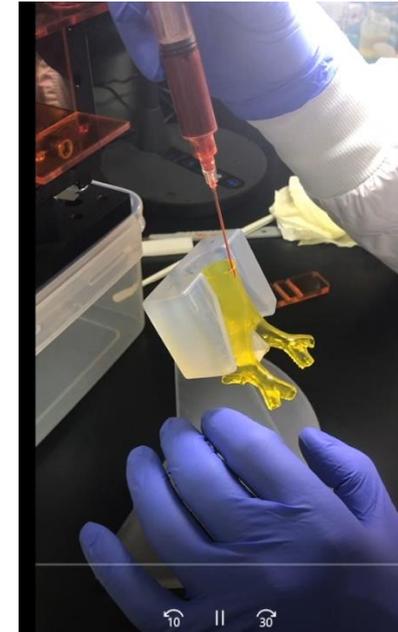
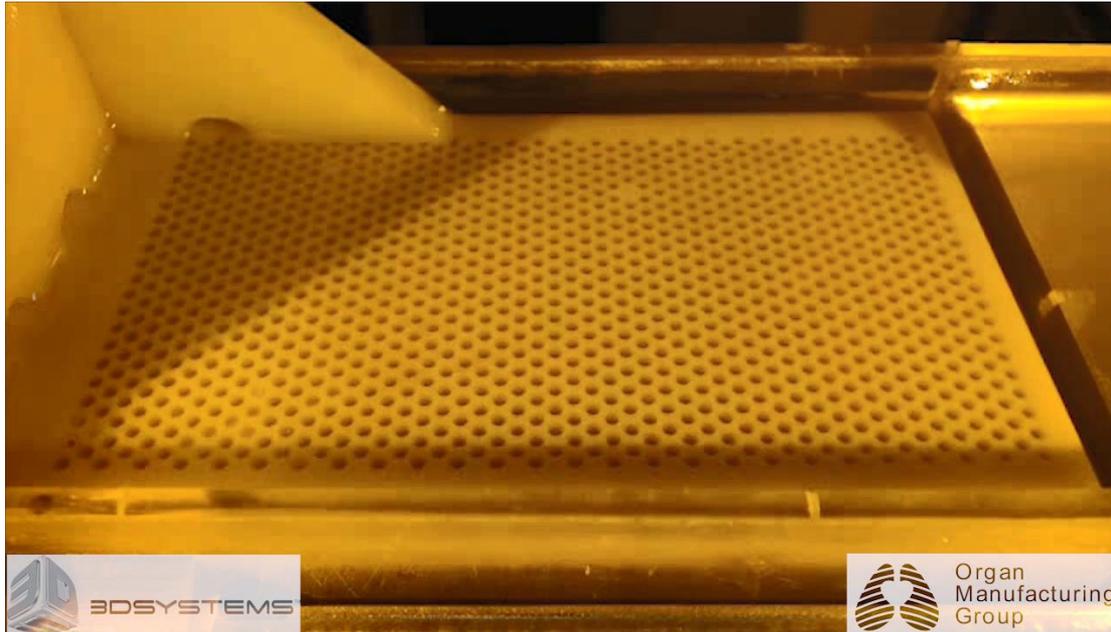


- Global licensing and commercialization agreement for 3D Bioprinting of solid organ scaffolds for human transplants
- Collaboration combines CollPlant's proprietary BioInk technology and United Therapeutics' regenerative medicine and organ manufacturing capabilities

Agreement highlights:

- \$5M upfront payment
- Up to \$39M milestone and option payments
- Royalties on product sales
- United Therapeutics has the option to expand the license to add up to three organs
- United Therapeutics will establish a U.S. facility for the manufacture of CollPlant's rhCollagen and BioInk

3D bioprinting of trachea and bronchi



100 μ perfused vessels

Breast implants



Breast implants market overview

Current breast reconstruction is based on synthetic breast implantation, free flap surgery/autologous fat tissue transfer - all of which replace tissue rather than regenerate it



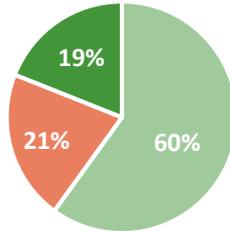
Market

\$1.4B
worldwide (2018)¹



Cost

\$ 5-10K
per procedure in US²



Procedure*

- Breast augmentation
- Breast lift
- Breast reconstruction³

* US segmentation



~2,500,000

Breast implant
procedures WW (2017)⁴
~500,000 in US (2018)⁵



FDA alert:

Patients with breast implants
have an increased risk of
developing breast implant
Associated- Anaplastic Large Cell
Lymphoma (Feb 2019)⁶

1. Analytical Research Cognizance, Global Breast Implant Market, March 2019
2. <https://www.webmd.com/beauty/cosmetic-procedures-breast-augmentation#1>
3. www.plasticsurgery.org/documents/News/Statistics/2018/plastic-surgery-statistics-full-report-2018.pdf
4. Breast augmentation and breast lift - https://www.isaps.org/wp-content/uploads/2018/10/ISAP2016_17_comparison.pdf
5. Breast reconstruction, 2014 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5807774/>
6. <https://www.plasticsurgery.org/documents/News/Statistics/2018/plastic-surgery-statistics-full-report-2018.pdf>
<https://www.fda.gov/medical-devices/letters-health-care-providers/breast-implant-associated-anaplastic-large-cell-lymphoma-bia-alcl-letter-health-care-providers>

CollPlant's 3D bioprinted breast implants



Breast scaffold printing



Loading ECM components +
autologous fat cells



Implantation and
vascularization



Implant replacement by
newly formed tissue



NASDAQ (CLGN) listed ADR since Jan. 2018
Market Cap of ~ \$59M*

45 employees

- Strong R&D team
- Fully integrated
- Production team with eight years track record

* As of February 4, 2020

Planned 12-month milestones

● Medical aesthetics

- Sign collaboration agreement with strategic partner
- Photocurable dermal filler animal study

● 3D Bioprinting

- Expand collaborations with key players
- Breast implants animal study



CollPlant investment highlights



Only commercially viable technology currently available that can produce truly human collagen



Multi-billion dollar market: innovative rhCollagen products initially aimed at 3D bioprinting and medical aesthetics



Broadly applicable technology: Ideal building block/scaffolding molecule for regenerative medicine



Strategic agreement with United Therapeutics (UTHR) for 3D bioprinting of lungs and other life saving organs



Clinically validated technology



Proven management team

Thank you



CollPlant
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