TELABIO®

A Soft-Tissue Preservation and Restoration Company

INVESTOR PRESENTATION

March 2024

Forward Looking Statements

This presentation contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts contained in this document, including but not limited to statements regarding possible or assumed future results of operations, business strategies, development plans, regulatory activities, market opportunity competitive position, potential growth opportunities, and the effects of competition, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause TELA Bio, Inc.'s (the "Company") actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "aim," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions. The forward-looking statements in this presentation are only predictions. The Company has based these forward-looking statements largely on its current expectations and projections about future events and financial trends that it believes may affect the Company's business, financial condition and results of operations. These forward-looking statements speak only as of the date of this presentation and are subject to a number of risks, uncertainties and assumptions, some of which cannot be predicted or quantified and some of which are beyond the Company's control, including, among others: the impact to the Company's business from macroeconomic conditions, including any lingering effects of the COVID-19 pandemic or other public health crises, recessionary concerns, banking instability, increasing market interest rates, and inflationary pressures, potentially impacting our ability to market our products, demand for our products due to the deferral of elective procedures, the labor and staffing environment in the healthcare industry, disruption in our supply chain, or pricing pressures concerning our products or the procedures using our products; our ability to achieve or sustain profitability; the Company's ability to gain market acceptance for the Company's products and to accurately forecast and meet customer demand; the Company's ability to compete successfully; that data from earlier studies related to the Company's products and interim data from ongoing studies may not be replicated in later studies or indicative of future data, that data obtained from clinical studies utilizing the Company's products may not be indicative of outcomes in other surgical settings; the Company's ability to enhance the Company's product offerings; development and manufacturing problems; capacity constraints or delays in production of the Company's products; maintenance of coverage and adequate reimbursement for procedures using the Company's products; product defects or failures. These and other risks and uncertainties are described more fully in the "Risk Factors" section and elsewhere in the Company's filings with the Securities and Exchange Commission and available at www.sec.gov. You should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in the Company's forward-looking statements may not be achieved or occur, and actual results could differ materially from those projected in the forward-looking statements. Moreover, the Company operates in a dynamic industry and economy. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties that the Company may face. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

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TELA Bio, Inc.

- Advanced reinforced tissue matrix portfolio supported by compelling clinical evidence
- $2.2B US market opportunity[1] – still in early stages of growth
- Driving commercial adoption with targeted direct-sales approach
- Recent product launches in growing markets: robotic hernia surgery, plastic and reconstructive surgery
- Broad intellectual property portfolio
- Established DRG-based reimbursement pathway for hernia repair and robust GPO access
- Highly accomplished executive team with proven track record

Redefining soft tissue preservation and restoration with a differentiated category of tissue reinforcement materials and supportive products

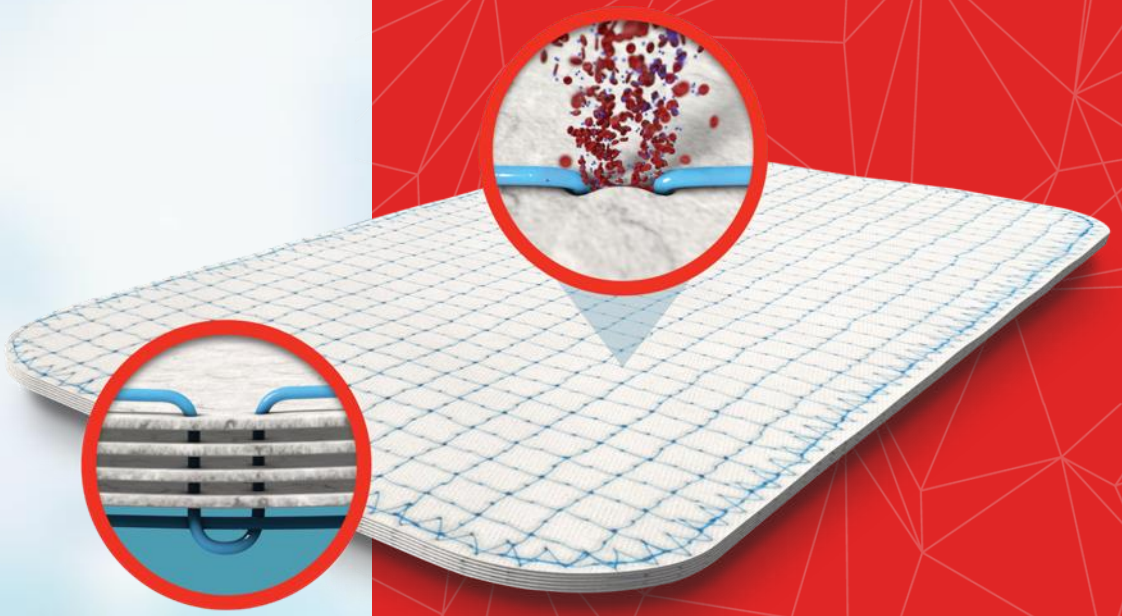
OVITEX®
REINFORCED TISSUE MATRIX

OVITEX® PRS
REINFORCED TISSUE MATRIX

[1] Management estimate. $2.2B total includes $1.5B hernia & abdominal wall reconstruction, $0.7B plastic reconstructive surgery.

OVITEX®

REINFORCED TISSUE MATRIX



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U.S. Hernia Surgery Market: ~$1.5 Billion Annual Opportunity

	Annual Procedures[1]
$360M **Complex, Moderate Ventral / Abdominal Wall Reconstruction**	**~60,000**
$515M **Simple Ventral Hernia Repair**	**~345,000**
$600M **Inguinal Hernia Repair**	**~665,000**
$40M **Hiatal Hernia Repair**	**~40,000**

Robotic / Minimally Invasive Surgery Opportunity

*Robotic / MIS compatible procedures total over **1M annually** and have a potential market opportunity of up to **$1.2B[2]***

[1]Sources: Millennium Research Group Reports, IMS Health Data; iData Research MedSKU

[2]Management estimate. Market size based on volume and weighted average selling price for OviTex

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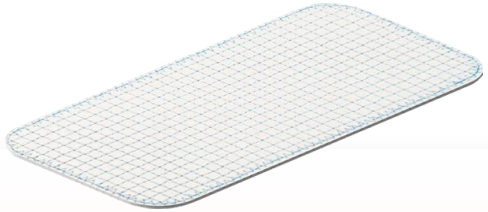
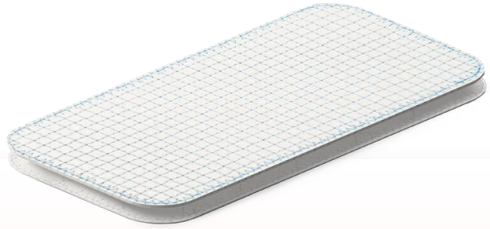
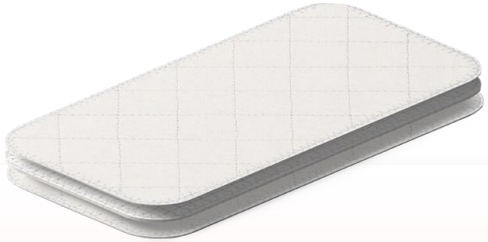
OviTex Portfolio: Designed for a Range of Hernia Patients and Surgical Techniques

	OviTex LPR	OviTex	OviTex 1S	OviTex 2S
				
CONFIGURATION	4-layer device, with “smooth side” suitable for intraperitoneal placement **Robot Compatible[1]:** Yes **Strength[2]:** + **Viscera Contact[3]:** Yes, smooth side	4-layer device, not intended for intraperitoneal placement **Robot Compatible[1]:** Yes **Strength[2]:** + **Viscera Contact[3]:** Not recommended	6-layer device, with “smooth side” suitable for intraperitoneal placement **Robot Compatible[1]:** Yes **Strength[2]:** ++ **Viscera Contact[3]:** Yes, smooth side	8-layer device, with 2 “smooth sides” suitable for intraperitoneal placement **Robot Compatible[1]:** No **Strength[2]:** +++ **Viscera Contact[3]:** Yes
COMPETITIVE SET	• Coated resorbable synthetic meshes BD *Phasix ST* • Biologic meshes abbvie *Strattice Laparoscopic*	• Resorbable synthetic meshes BD *Phasix*; GORE *Bio-A* • Biologic meshes abbvie *Strattice*; INTEGRA *SurgiMend*; BD *XenMatrix*	• Coated resorbable synthetic meshes BD *Phasix ST* • Biologic meshes abbvie *Strattice*; INTEGRA *SurgiMend*; BD *XenMatrix*	• Biologic meshes abbvie *Strattice*; INTEGRA *SurgiMend*; BD *XenMatrix*

Images represent permanent polymer OviTex products. Resorbable polymer products have clear polymer. All trademarks and registered marks are property of their respective owners.

1. Robot compatibility based on use of 10mm trocar. Robot compatibility of LPR and OviTex include sizes 400 cm^2 or less. Robot compatibility of OviTex 1S includes sizes 200 cm^2 or less
2. Biomechanical data on file.
3. Devices with a smooth side were shown to not adhere in an animal model. Rabbit data on file. Correlation to results in humans has not been established. Animal test results may not necessarily be indicative of human clinical performance.

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Need for Alternative to Permanent Synthetic Mesh

59% of surgeons agree that use of permanent synthetic mesh puts patients at long-term risk of complications[1]

3 of 4 Hernia patients want proactive control in their care[2]

~24K Lawsuits against permanent synthetic meshes estimated to be assembled across the U.S.[3]

1. Hernia and Abdominal Surgeries Survey (Oct 2020). A group of 71 surgeons were surveyed regarding use of mesh in various hernia repair surgeries.
2. Figures derived from Company-sponsored poll of approximately 1,100 potential patients for hernia procedures.
3. www.drugwatch.com (September 2022)

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LOW RECURRENCE ALL APPLICATIONS WITH OVITEX

0% HIATAL

Sawyer – 2018[1]*
25 patients
Average follow up 14 months

16% BRIDGED

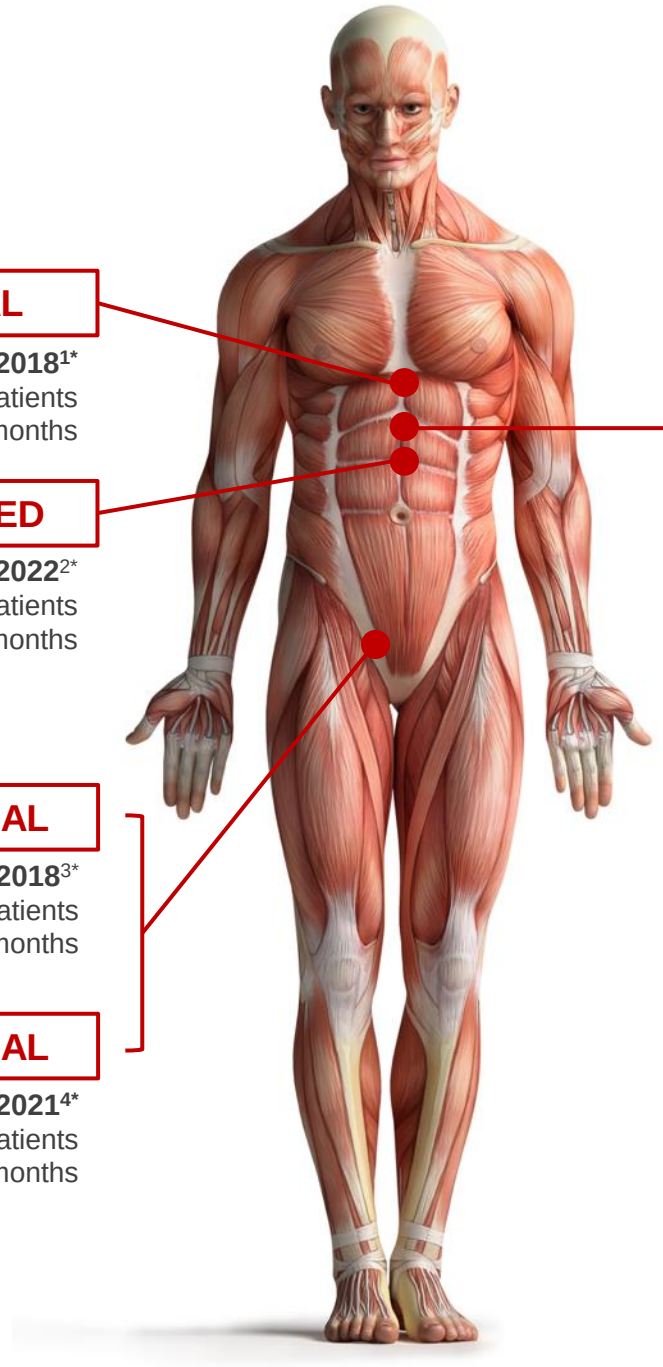
DeNoto – 2022[2]*
22 patients
Average follow up 23 months

0% INGUINAL

Ferzoco – 2018[3]*
31 patients
Average follow up 13 months

1.6% INGUINAL

Ankney, Szotek et al. – 2021[4]*
306 patients
Follow up 1-36 months



VENTRAL 2.8%

Sivaraj, Nazerali et al. – 2022[5]*
36 patients
Average Follow-up 29 months

AWR 1.9%

Ankney, Szotek et al. – 2021[4]*
54 patients
Follow-up 3-38 months

VENTRAL 0.8%

Ankney, Szotek et al. – 2021[4]*
259 patients
Follow-up 1-58 months

VENTRAL 4.0%

Sivaraj, Nazerali et al. – 2022[6]*
50 patients
Average Follow-up 29-34 months

VENTRAL 2.6%

DeNoto, et al. – 2022[7]*
92 patients
Follow-up 24 months

VENTRAL 6%

Parker, et al. - 2021[8]
50 patients
Follow-up 12 months

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Source: Refer to “Ovitex Clinical References” in this presentation.
* Indicates one or more surgeons are paid consultants of Tela Bio, Inc.

Favorable Results of OviTex in Ventral Hernia Repair:
Comparisons to synthetic mesh and leading generation one biologics

	Parker et al.[8]		Sivaraj et al.[5]			
Total enrolled patients	**50 OviTex**	50 Polypropylene	**36 OviTex**	51 Strattice	17 Permacol	37 Surgimend
Length of follow-up	**12 months**	12 months	**28.6 months (median)**	34.6 months (median)	58.4 months (median)	37.5 months (median)
mVHWG	**32% grade 2 68% grade 3[a]**	94% grade 2 6% grade 3	**33% grade 1 58% grade 2 8% grade 3**	17% grade 1 79% grade 2 4% grade 3	18% grade 1 71% grade 2 12% grade 3	40% grade 1 51% grade 2 9% grade 3
CDC wound class	**70% CDC class II+ [a]**	94% CDC class I	**89% class I-II**	86% class I-II	94% class I-II	91% class I-II
Incidence of SSO	**36%***	22%*	**16.7%***	47.1%*	52.9%*	43.2%*
Incidence of SSI	**-**	-	**2.8%[b]**	12.5%	11.8%	5.4%
Recurrence rate	**6%**	12%	**2.8%[c]**	13.7%[c]	29.4%	24.3%

*Overall complications including SSI
a – OviTex patients were more complicated with a significantly higher mVHWG distribution and CDC wound classification compared to polypropylene patients
b – OviTex patients experienced significantly less complications than patients receiving the other three biologics
c - OviTex and Strattice patients had a statistically lower recurrence rate than patients receiving the other two biologics

Source: Refer to “Clinical References” in this presentation.

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Positive 24-month BRAVO results in ventral hernia:
OviTex performance contextualized alongside recent publications for leading competitive products

	DeNoto et al. (BRAVO)[7]	Harris et al. (PRICE) [10]		Roth et al.[11]	Hope et al. (ATLAS)[12]
Total enrolled patients	92 **OviTex**	82 Strattice	83 Ventralight ST or Bard Soft Mesh	121 Phasix	120 Phasix ST
Length of follow-up	24 months	26 months		36 months	24 months
mVHWG	78% grade 2-3	-		-	-
CDC wound class	95% class I-II	90% class I-II	93% class I-II	100% class I	100% class I
Surgical technique	Open (65%) Laparoscopic (13%) Robotic (22%)	Open	Open	Open	Laparoscopic (55.8%) Robotic (44.2%)
Incidence of SSO	38% (includes SSI)	21% (excludes SSI)	22% (excludes SSI)	-	0.8% (includes SSI)
Incidence of SSI	20.7%	39%	34%	9%*	0%
Recurrence rate	**2.6%***	40% (overall) 34% (class I wounds)	22% (overall) 28% (class I wounds)	17.9%*	31.7%* (overall) 18.6%* (defects < 7cm^2)

* Kaplan-Meier survival estimate

**No head-to-head clinical studies have been conducted. Due to differences in patient population, surgeons, surgical technique, and other variables, no direct comparisons of results can be made. For a comparative discussion of these studies, please see G. DeNoto, E.P. Ceppa, S.J. Pacella, M. Sawyer, G. Slayden, M. Takata, G. Tuma, J. Yunis, 24-Month results of the BRAVO study: A prospective, multi-center study evaluating the clinical outcomes of a ventral hernia cohort treated with OviTex® 1S permanent reinforced tissue matrix, Ann Medicine Surg 2022, 83, 104745.

Source: Refer to “Clinical References” in this presentation.

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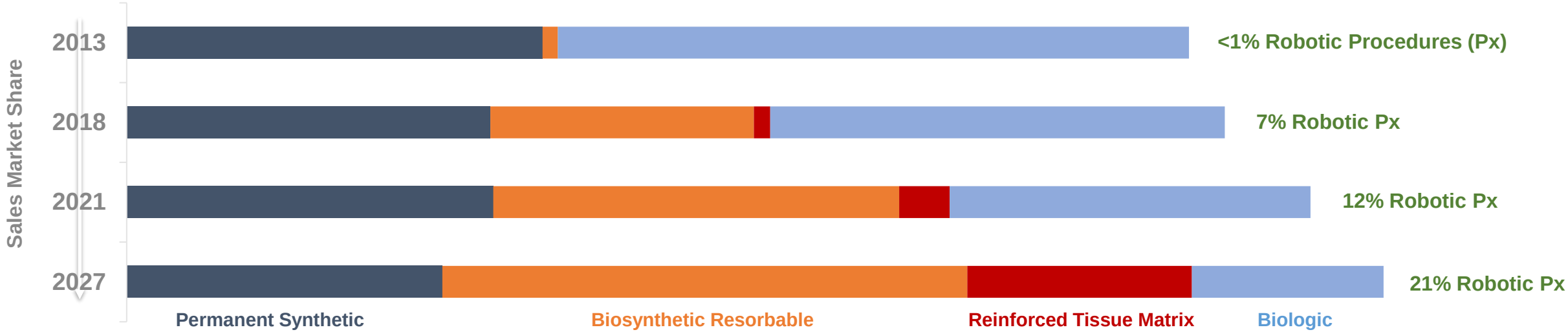
Hernia Market Evolution

TELA Bio is gaining from a market shift by providing our reinforced "natural repair" solutions as an alternative to traditional Permanent Synthetics or Biologics



Biosynthetic Resorbable *and* ***Reinforced Tissue Matrix strengths****:*

- ***Clinical Evidence***
- ***Robot Compatibility***
- ***Cost-effectiveness***
- ***Patient Choice & Shared Decision-making***

Sources for Sales Market Share (%): 2009 - 2013 = IMS Hospital Supply Index; 2018 - 2021 = iData Research MedSKU; 2027 = Management Estimate
Sources for Total US Market Size: 2021 - 2027 = DRG Hernia Repair Devices Report – 2021; 2013 - 2018 = Management Estimate
Sources for % Robotic Procedures (Px): 2018 - 2027 = DRG Hernia Repair Devices Report – 2021: 2013 = Management Estimate

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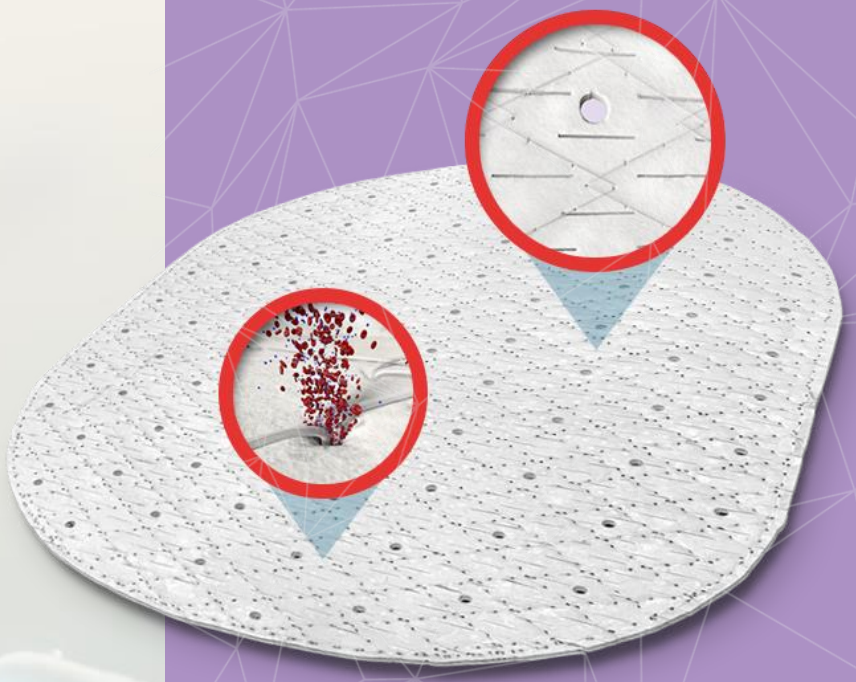
OVITEX® PRS

REINFORCED TISSUE MATRIX



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U.S. Plastic and Reconstructive Surgery Market: ~$700 Million Annual Opportunity

$600M[2]

Surgeons use products to reinforce soft tissue during various reconstructive surgeries[1], including:

- Head and neck surgery
- Chest wall reconstruction
- Pelvic reconstruction
- Extremities reconstruction
- Breast reconstruction

Market dominated by human acellular dermal matrices (HADMs):

- Prone to high degree of stretch
- Expensive, putting pressure on hospital systems
- Can experience supply shortages, particularly when large pieces of material are required

Cosmetic Plastic & Reconstructive Surgery

+ $100M[2]

[1]OviTex PRS is for implantation to reinforce soft tissue where weakness exists in patients requiring soft tissue repair or reinforcement in plastic and reconstructive surgery. The device is supplied sterile and is intended for one-time use. OviTex PRS has not been tested in breast surgical procedures.
[2]Management estimate. Source: iData Research MedSKU, Q3 2021. Market size based on sales of current biologics

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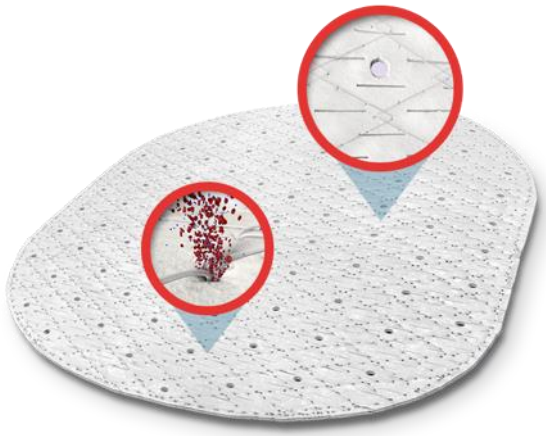
OviTex PRS: Specifically Designed for Plastic and Reconstructive Surgery

An innovative reinforced tissue matrix designed to improve outcomes by facilitating fluid management and controlling degree and direction of stretch

Available in both **2-layer resorbable (polyglycolic acid) polymer, 3-layer permanent (polypropylene) polymer, or 3-layer resorbable (polylactic-co-glycolic acid) polymer** reinforcing the same biologic material



Product Features:

- Layers composed of biologic building block retain biologically significant macromolecules for tissue regeneration[1,2]
- Diamond embroidery pattern and stents allow for directional flexibility or sawtooth embroidery pattern to accommodate bi-directional stretch while providing stretch resistance.
- Distinct permeability elements in various configurations – e.g., micropores, macropores, and stents – designed to facilitate fluid management

OviTex PRS compared to market leading human ADM[3]:

- Exhibited earlier host cell proliferation, collagen deposition and neovascularization
- Demonstrated tissue remodeling into mature, functional and organized collagen

1. Certain configurations available in two or three layers, see product catalog more information. 2. Lun S, Irvine S.M., Johnson K.D., Fisher N.J., Floden E. W., Negron L., Dempsey S.G. , McLaughlin R.J., Vasudevamurthy M. , Ward B.R., May B.C., A functional extracellular matrix biomaterial derived from ovine forestomach, Biomaterials 31(16) (2010) 4517-29.
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LIQUIFIX™
INTERNAL ADHESIVES

Leading-edge atraumatic hernia mesh fixation devices

BETTER TOGETHER 2024

LIQUIFIX FIX8™ and LIQUIFIX Precision™

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LIQUIFIX FIX8 is indicated for minimally invasive femoral and inguinal hernia repairs and for approximation of the peritoneum; LIQUIFIX Precision is indicated for open inguinal and femoral hernia repairs.

Atraumatic liquid fixation devices

- Reduce the need for penetrating mechanical fixation for inguinal and femoral hernia repair
- Provide precise, controlled adhesive application

Fills an unmet need in the market, less damage to tissue

- Designed to minimize the risk of mechanical tissue trauma[1]
- Strong and secure mesh fixation[2,3]
- Pre-assembled device
- Adhesives polymerize in ~10 seconds
- Provides versatile liquid anchors at multiple angles

1-3. Data on file: Advanced Medical Solutions

Driving Revenue Growth

Sales Force Size ✖ **Rep Productivity** ✖ **Product Portfolio** ✖ **GPO Access** ✖ **Clinical Data** = **$ales**

Sales Force Size

2021: 40-45 reps

2022: 61 reps

2023: 86 reps

2/29/24: 86 reps + 6 asst. reps

Rep Productivity

- Playbook90 training and assessment
- 3-6 mos. to breakeven
- TELA LIVE
- Cadaver Labs
- Clinical Development Specialists
- AboutHernia website

Product Portfolio

OVITEX® REINFORCED TISSUE MATRIX

✚

OVITEX® LPR REINFORCED TISSUE MATRIX

✚

OVITEX® PRS REINFORCED TISSUE MATRIX

✚

LIQUIFIX FIX8™

✚

LIQUIFIX Precision™

✚

R&D and BD

GPO Access

HEALTHTRUST®

>1,600 hospitals

✚

PREMIER

~4,400 hospitals

✚

Third National GPO

✚

More to come

Clinical Data

- BRAVO 24-month data: 2.6% recurrence
- >30 published or presented works

TELA Bio is growing <u>each</u> factor that contributes to sales, providing for multi-year, long-term growth

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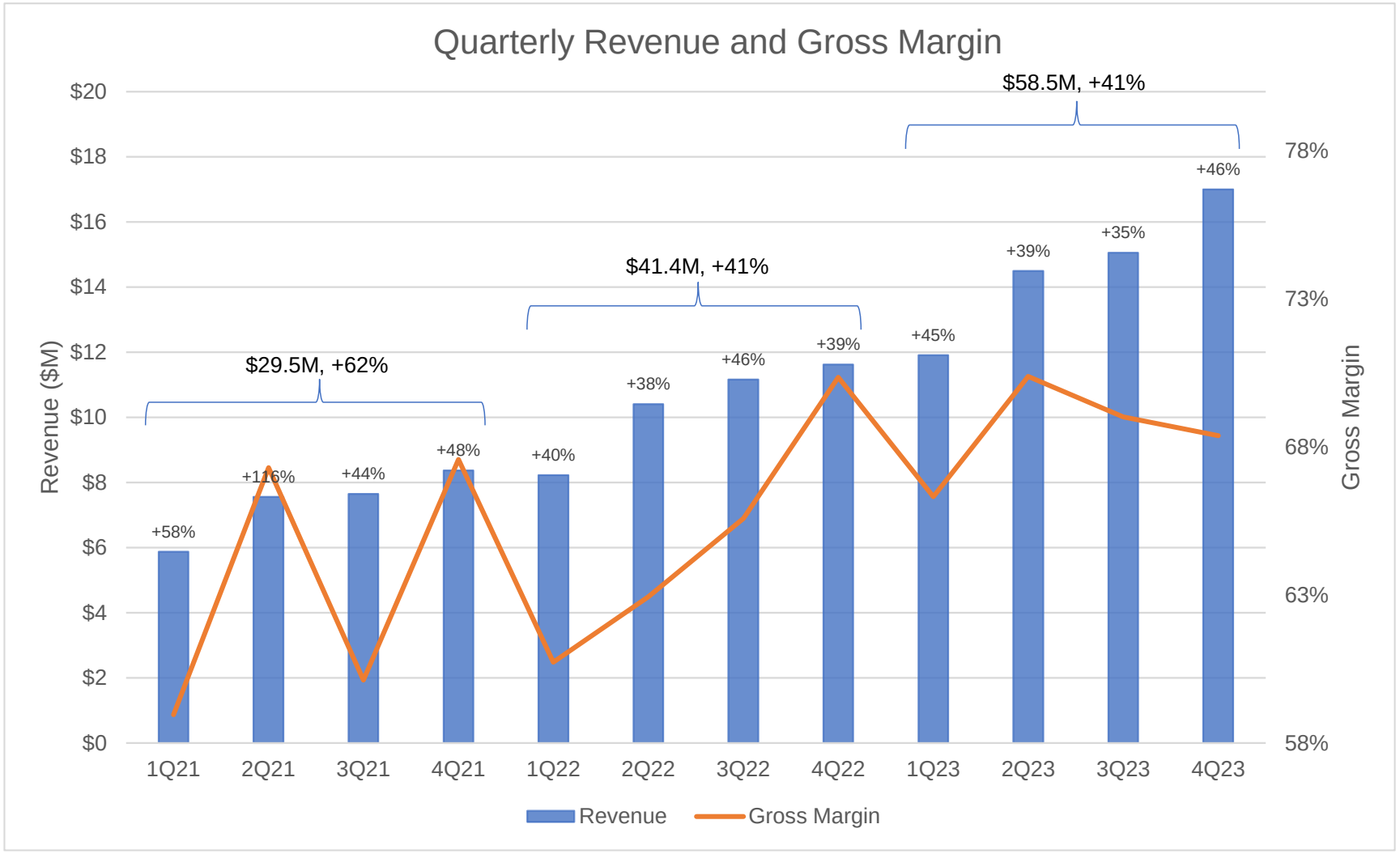
Delivering Revenue Growth and Margin Improvement



Q4 2023 Performance

- Revenue of $17.0M grows 46% over corresponding period of 2022
- 68% Gross Margin
- Cash and Cash Equivalents at December 31, 2023: $46.7M
  - Does not include $5M 1Q24 proceeds from divestment of NIVIS or additional $3M to $7M expected in next two years

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